

THE

DEVOURING FIRE



R.T.

by... *Vargo Statten*

ASCION
1/6
SCIENTIFIC NOVEL

The Devouring Fire

By

Vargo Statten

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fictitious. Any resemblance to a real person,
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CHAPTER ONE

By the year 2000 the greatly changed, and still rapidly changing social conditions on Earth necessitated a fundamental alteration in many laws. A New Order had to be created, since the new ideas were in perpetual conflict with the old laws to which it was often quite impossible to conform.

"For the better advancement of science," as the old formula of words expressed it, the law relating to patents and inventions underwent a radical transformation. The Patent Office, as it continued to be called, became a Repository of secret information that could not under any circumstances be revealed to any person or body of persons other than "the owner or owners of said patent, invention, or formula, or other discovery embodied in words, or in figures, or by model or sample duly deposited by the accredited owner and coded in the department's archives . . ."

Had that new law never been made; had inventions been printed in a specification complete with drawings, published and sold by the Patent Office, as of old, then the trouble over the Rocket fuel might not have arisen.

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Madge Pearson was not looking at all pleased as she walked purposefully along the black-and-white tiled passage way which led to the laboratories. It took her all her time

to say "good evening" to the night watchman's greeting.

"Mr. Meadows in the laboratory?" Madge demanded of him.

"Yes, Miss Pearson. Everybody else has gone."

"I'm not surprised at this hour!"

Madge was indignant. In fact she was about ready to blow up, otherwise she would never have troubled to enter the sombre splendour of this Institute of Scientific Research.

At the glazed door marked "Experimental Laboratory—Keep Out!" she hesitated for a moment, listening. There were no sounds from within, even though the lights were on. She had been here once before and burst in on a class, to retire again with a red face. She did not intend to make the same mistake again. So she tapped lightly on the opaque glass.

There was no response. At a sound she turned to find that the night watchman had followed her. He scratched his ear.

"Don't he answer?" he asked; then with perfect logic added, "He should. He ain't left, not that I seen any-way."

"He should have met me over an hour ago," Madge snapped. "Instead I've been catching my death of cold hanging round a draughty street."

"I should go in, Miss Pearson. Can't be anybody but him in there so it'll be all right."

Madge turned the doorknob and stepped into the laboratory beyond, closing the door silently behind her. The huge expanse was brightly lighted with well contrived shadowless lamps. There were endless benches littered with scientific impedimenta. Against the spotless walls stood complex equipment. Here and there a switch-panel rose like an island, its meters quivering under the impulse of an electrical load. There was the smell of ozone in the air. But Madge Pearson was not a scientist: she was the much-pampered daughter of one of Britain's most famous financiers—and she was peeved.

Her grey eyes settled finally on a lone figure at a distant bench. He was sitting like a man under a spell, stained

white overall falling away down the front from rough tweeds. In one hand he held an extinguished pipe: the other was gripping a bundle of notes from the scratch-pad.

"So this is how you keep your appointment!" Madge exclaimed, going forward slowly. "You're seated here nice and cosy while I stand in the January wind waiting for you! What's the idea, Dick?"

Dick Meadows stirred as though he had heard something afar off. There was a look in his deep blue eyes which gave Madge a slight shock for the moment. He seemed to be looking straight through her into infinite spaces beyond.

"What's—wrong?" she faltered, gripping his arm. "You're not—ill, or something?"

Still he looked at her, his craggy young face set and hard, his lips compressed over a profound thought. He did not see the girl's rosy cheeks, her little blonde curls peeping under her saucy hat, her warm winter coat with the fur collar——

"I oughtn't to be alive!" he declared at last, giving himself a little shake.

"I'm wondering if you *are*!" Madge nodded to the big electric clock. "Look at the time! Half past eight, and you said you would meet me at the Corner House at seven-thirty as usual. If you go on this way when we're only engaged, how will you be when we're married?"

As Dick did not seem to hear her Madge drew up a chair impatiently and sat down. Then gradually her anger cooled before his complete indifference to it.

"No—so much luck shouldn't fall entirely to one person," Dick decided, lighting his pipe absently.

"What on earth are you talking about? What about our appointment for——"

Dick gave a start and suddenly seemed to remember.

"Great heavens, of course! I promised to meet you, didn't I?"

"You did—and in case you've forgotten my name too it's Madge Pearson."

Dick got up from the stool, his expression full of apology. He put his arm about the girl's shoulders but she pulled herself away impatiently.

"Naturally you're cross." Dick gave a sigh. "And I don't blame you. But is it any consolation to you to know you're engaged to the one scientific engineer in the country who has been commissioned by the Government to design the first spaceship?"

Madge frowned for a moment, not understanding.

"Spaceship?"

"That's what I said. You will remember that a couple of years ago I submitted to the Government a formula for a new type of spaceship, specially designed to use a fuel of my own discovery. Naturally I kept that formula to myself. Matter of fact the ingredient I add is inaxium, a by-product of uranium which makes ordinary rocket-fuel very cheap and very powerful. After two years of messing about I have been informed by the Government that I am to design a spaceship capable of carrying half-a-dozen people, the plant being made so it can use my fuel. No deal yet on the formula. Fortunately I patented my fuel formula so it can't be stolen from me."

"But—but why in the world didn't you tell me sooner?" Madge cried in delight, leaping up and hugging Dick tightly. "Why, it's wonderful. And—and you mean you are the sole engineer doing the job?"

"That's it!" Dick's deep blue eyes were bright. "By profession I am a scientific engineer: by accident I found the perfect space fuel. Between the two I'm the Government's new pet—the man who is going to make space travel a definite thing instead of a vague idea costing millions for every rocket ship fired into the void. I'm sorry about to-night: I was so lost in thought working out the design I quite overlooked everything else——"

"The genius is forgiven," Madge interrupted, laughing.

"That's a load off my mind! Now, let me explain how this thing works. With inaxium added to the ordinary rocket fuel, which operates on the disintegrative principle, we have——"

"Yes, dearest, I'm sure we have—but, I'm thirsty."

"Eh?"

"Thirsty! We usually have a little supper at the Corner

House, don't we? Please, Dick, clear the cobwebs for a moment."

Dick grinned ruefully. "Sorry. All right, I'll pack it in for to-night and carry on in the morning. And will Vince be surprised when I tell him?"

"Vince? It isn't a secret, then?"

Vincent Clegg was Dick Meadows' fellow-worker in the experimental laboratory, but his activities ran to biological work. None the less he was a brilliant all-round scientist, and a likeable fellow, too.

"The fuel is a secret, certainly," Dick responded, tugging off his overall, "but the fact that I've been made chief spaceship designer is not. Vince must know! He'll be tickled to death . . . In fact this moment is so solemn I only half understand it myself. I'm laying the foundation stone of one of the greatest achievements known to man. The conquest of space! It only wants somebody with business acumen to start launching a Space Corporation in readiness, and there we are . . . In fact, Miss Pearson, I may say with all due modesty that you stand the chance of becoming the wife of a millionaire scientist. I have the secret, remember, and that is what makes the millions."

"Dad has business acumen," Madge commented, rather dryly.

Dick pulled on his overcoat and looked surprised.

"Well, I should think he has! Morgan T. Pearson, eh?—" Dick stopped and snapped his fingers. "Wait a minute! Are you thinking he might be interested in launching a Space Corporation?"

"Well, I imagine he would like to be in on the ground floor. Since he's your prospective father-in-law I think you should give him the opportunity."

"No doubt about it! Will he be at home now?"

Madge nodded. "I left him with a frown on his brow and the stock market report in his hand. He'll be at home all evening. There are times when mother insists on it."

Dick grinned and took Madge's arm. He led her to the door, switched off the lights, then locked the door securely

behind him. The night watchman saluted as the two left the building.

"Corner House first," Dick said, as they stepped out into the cold January night. "Fortify ourselves to begin with. I always feel I have to before tackling your old man."

"He's not so savage, even though he looks like a bulldog," Madge laughed, following Dick to the private garages at the rear of the vast building where his car was parked.

None the less, Morgan T. Pearson *did* look like a prize bulldog—at least to Dick who saw less of him than Madge. When, fortified, they entered the financier's study they found him browsing through a massive ledger, the desk lamp casting a cone of light upon it.

"Well?" he asked briefly, glancing up. "Didn't your mother tell you I'm busy, Madge?"

"Yes, dad, but you can't be too busy to hear this."

Dick grinned privately. He had witnessed these wordy tennis matches before and Madge always seemed to win. Morgan T. cleared his throat, closed the ledger, then motioned a velvet-coated arm.

"Put the light on, Madge."

She obeyed, filling the room with soft radiance. It was opulent, extremely warm, and self-sufficient. So was Morgan T. in his velvet jacket. He was shortish, thick shouldered, and nearly bald. No other description of his face is needed except that he looked exactly like a bulldog, but when dealing with his daughter—the only offspring of his union with his long-suffering and completely understanding wife—the steel trap mouth lost its tightness.

"Sit down, m'dear," he said, getting up and motioning to a thick hide armchair. "You, too, Dick . . . Have a cigar, boy?"

"No thank you, sir. I don't smoke much."

"No?" Morgan T. grinned and lighted one for himself, scenting its delicate aroma. "You should! Good cigars, good wine, beautiful women—— Hmmm!" Morgan T. stopped, momentarily lost in reflections upon his youth, then he added dryly, "Not that this visit is a surprise. You've

decided to become man and wife, I suppose, and want to break the news to the head-hunter?"

"Er — no," Dick said politely.

"No? Then what the devil are you wasting my time for? I'm a busy man, and——"

"Just a minute, dad," Madge put in quietly, and he was instantly silenced. His gimlet grey eyes fixed her in enquiry.

"I think," Madge continued, loosening her coat, "you ought to finance a Space Corporation with yourself as the managing director."

Morgan T.'s eyebrows went up. "You think *what*? Since when have you been telling me how to control my business?"

"Since to-night. You see this young man sitting next to me? He's building the first spaceship for the Government, and using a special fuel of his own invention. The Government will establish a Space Line to the planets and coin millions—unless you get in first and control the rights."

"Rights? Spaceships? What *are* you talking about, Madge?"

"Perhaps I can make it plainer, sir." Dick cleared his throat and with the precision of a lecture hall professor went into the details. He did not feel too comfortable when, at the finish, the financier was eyeing him with pin-sharp gaze.

"The point is this, dad," Madge added. "Dick owns the secret for the making of the fuel. He hasn't sold out to the Government, but sooner or later he may be asked to. He can't if he has sold it to you. If you start a Space Corporation *and* own Dick's secret for the fuel, you'll have absolute monopoly of space. Just as certain air corporations to-day have monopoly of the skies."

"But — a *space* line!" Morgan T. chewed his cigar and scowled.

"Naturally, sir, you are thinking of previous attempts to conquer space," Dick said, still very respectful. "They all came to nothing and involved huge sums of money. That was because the fuel used was not sufficiently powerful and sustained to lift the projectile clear into the void. With this machine I am designing there's no question about

it. Within twelve months, or even less, regular trips to the Moon, Mars, Venus—and later the outer planets—will begin."

"What person would want to go to such places?" Morgan T. questioned. "What do you get? A dead hulk on the Moon—a thin air and light gravity on Mars—and God knows what on Venus since it's a shrouded planet. I'm none too sure, boy—none too sure."

"Well, it's up to you, sir." Dick gave a shrug. "I thought you would like the first refusal——"

"Dad will launch his Corporation all right," Madge broke in, rising, and her father gave her a grim look.

"You've added mind reading to your accomplishments, m'dear?" he asked.

"No, dad. I just happen to know when you're tottering and I'm the one person who can give you the fatal push. And I shall . . . Come on, Dick, and leave dad to me."

Dick gave a rather bewildered look and then shook hands with the tycoon. He was grinning a little round his cigar.

"If you two have a daughter," he said, "you'll find your hands full. I *know*! Good-night, boy, and congratulations. First time I ever heard of a Government department doing something progressive. I'll talk with you later, Madge."

No, dad, I'll talk with *you*." She smiled sweetly at him over her shoulder and Dick opened the study door. In a few moments they had reached the front porch.

"I'll ride with you as far as your rooms, Dick," Madge said. "I think we should talk over this project and what it means to us. I can take a 'bus back home."

"Suits me." Dick drew her arm through his and they went down the broad steps together, to his car.

Within a few minutes Dick was driving down the almost deserted road which led into the city. The home of Morgan T. was well out from the metropolis itself, perched on rising ground and commanding a view of open spaces all too few in a rapidly developing area.

"You think your father really will do something?" Dick asked at length.

"Certain. He always hums and haws a lot before he does anything, but I can read him like a book. He'll establish a Space Corporation all right, and we'll all be in it——" Madge broke off suddenly and pointed. "Oh, look, a shooting star! Make a wish quickly."

It was too late to do that. Dick glanced up just in time to see an expiring streak across the far horizon.

"Maybe a good sign," Madge murmured, settling back in the bucket-seat. "Spaceship in reverse! That's how our first spaceships will look as they streak heavenward, isn't it? The Pearson and Meadows Space Line! How does that sound?"

"Mmmm?" Dick asked absently, his eyes on the road.

"I said Pearson and Meadows Space Line! Sounds quite important, doesn't it?"

"Yes—— Yes, I suppose it does. Sorry, Madge, I was just thinking about something."

"Then I'll stop my idle chatter. Can't afford to muss up the thoughts of a genius."

But at that moment Dick was not thinking about his space machine: he was thinking about the shooting star. It had blazed across his mathematical speculations with a certain meaning—a meaning so vivid and startling he could hardly believe it.

* * *

Dick found it difficult to concentrate on his work at the Research Institute the following morning. Indeed, as far as adding to the design of the space machine and its power plant was concerned he did exactly nothing. Instead he was busy with a mass of equations and mathematical computations.

Towards mid-morning Vincent Clegg of the biological department dropped in from the annex to pass the time of day and join in a cup of coffee. He found Dick morose and silent, rubbing the back of his neck as he studied his figures.

"Something the matter?" Vince enquired in surprise, handing over the coffee cup. Then he looked at the half drafted sketches. "And just what's all this about, anyway?"

Vince Clegg was a round-faced, smiling fellow in the late thirties and in his seventh year with the Institute. There were few branches of science of which he had not a good mastery otherwise he would not have been entrusted with a hundred men and women workers under him.

"That?" Dick glanced at him and shrugged. "It's a spaceship."

"So I gathered—but what the heck's the idea? This a notion of your own or have you been told to do it?"

"I've been *asked*—which makes a 'whale of a difference.'"

Vince's brown eyes opened a trifle wider. Then he gave a grin as he settled on the nearby stool and sipped his coffee.

"Tell me about it. If the Institute is taking up space travel amongst other things it's worth knowing."

Dick gave the details, insofar as he considered necessary, but despite the fact that he had told Madge the previous night that he must tell of his triumph to Vince, he had no ring of enthusiasm in his voice. When he had finished he relaxed moodily and considered the computations he had been making.

"For a man who has the most important contract ever—to say nothing of what can accrue from it—you're a pretty cheerless sort of devil," Vince commented. "What's the matter? Feeling liverish?"

"No, no—just something bothering me."

"In the design of this thing? Oh, you'll solve it. Well, I must be getting back. Work to be done. Keep me posted. I want to see how this machine works out."

Dick nodded and returned to his figuring. By noon he had arrived at certain conclusions and was looking dazed in consequence. He did, however, remember that he had a luncheon date with Madge at the Eagle Restaurant and found her already at their usual table when he arrived. She could not help but notice his troubled expression.

"I've given the order," she said. "And what's wrong? Been taken off the spaceship job?"

"No, no. Just a bit puzzled over some figures I've been working out."

Madge smiled. "Only to be expected with such a problem on your hands. Anyway, perhaps it will cheer you to know that dad has made the first moves towards launching the Space Corporation. I don't quite know *what* he's done but he's pulled strings in the right places. In fact he's so convinced by now that he's in on the ground floor of a mighty project he's sinking most of his fortune in it."

Dick gave a start and looked uneasy. "I rather wish he hadn't done that," he said. "Not put all his eggs in one basket, I mean. Just in case there *might* be some slip-up."

"But what slip-up can there be? You've got the fuel, and the design—now you've got the Corporation. There never was anything more gilt-edged."

Dick did not say anything. In fact throughout lunch he was not a particularly bright companion. Madge did not raise any protests, believing it was the space machine problem on his mind. When he parted from her it was with the promise to meet her as usual at the Corner House that evening at seven-thirty.

"It's unbelievable," Dick muttered to himself, when he was back in the laboratory with his notes around him. "And yet it may explain why no interplanetary expedition has come to visit us. Flying saucers don't come into it since they've been proven to be scientific weapons and not interplanetary visitors. Despite the vast intelligence there must be elsewhere in the Universe, nobody has ever visited Earth . . . And if these figures are right, no wonder!"

The inter-com. phone rang and he switched it on.

"Meadows speaking . . ."

"Oh, step into my office for a moment, Meadows, will you?"

"Right, sir." Dick switched off. The head of the Institute had given the order, and that was sufficient. In a matter of three minutes he was entering Dr. Waterhouse's office elsewhere in the great building.

Waterhouse was an elderly man and probably one of the most capable scientists in the country—yet he had still preserved his humanity. He considered Dick's somewhat drawn features for a moment and then motioned to a chair.

"About this spaceship design, Meadows. I had word from the Government this morning that they would like the preliminary sketches without delay. How long will you be?"

"Oh—er——" Dick rubbed his forehead. "Another week perhaps."

"Right. I shall rely on that. Must keep things organised, of course . . . Now, I have another item for you — and a pleasant surprise it will be, I hope. The Government has offered to buy your fuel formula. They didn't—hmm—mention an exact figure to me, as an intermediary, but I gather it is in the neighbourhood of a million pounds for complete control of the formula rights."

Dick smiled rather wearily. "That's very nice, Doctor, but I am afraid the offer doesn't interest me!"

"What! An offer of a million doesn't *interest* you? Do you realise——"

"Yes, Doctor, I realise quite well. It is a huge sum of money, but I can't do it. I reserve the right to sell in the most lucrative market."

"Yes, of course, but——" Waterhouse paused and reflected; then he shrugged. "Oh, very well. I shall leave it to you to handle your own affairs, of course. However, complete that spaceship design within a week if you possibly can."

"I'll do my best, sir."

Dick got to his feet and departed. Returning to his perch in the laboratory, he sat for a while considering the design in front of him. Finally he sighed, and resumed his operations with the slide rule.

He had not been at work very long before the telephone shrilled again. He reached out one hand to it and continued working with the other.

"Meadows speaking . . ."

"Hello, son. Morgan T. here."

"Oh, good afternoon, sir." Dick gave his attention to his caller. "How are you?"

"Do you care, or are you just being polite? Cut out all the mannerly build-up, son, and answer a straight question—— How much do you want for controlling rights in this fuel of yours?"

Dick hesitated. "You—you mean the rocket fuel?"

"What did you *think* I meant? I understand the Government has made you an offer in the region of a million, unless my scouts got the figure wrong. Anyway I'll assume they are right and I'll offer one and a half millions for complete control of the formula. Spaceship design I can't touch since you're working to a Government contract, but when you build a different design with improvements—giving the worst one to the Government first, eh?—we'll talk business. Well, how about it?"

Dick was silent. It was no business of his by what underground wizardry Morgan T. had heard of the Government offer, but it was a shock to get another offer so quickly.

"I — I'd like time to think about it," Dick responded at length.

"Think about it!" the financial baron exploded. "What the hell for? A million and a half's a stupendous sum, and I'm pretty sure nobody will advance on it. Anyway I consider I have prior claim since you intend to marry my daughter . . . don't you?"

"Of course, sir. But that isn't the point. I've discovered something which doesn't make me too keen to sell my formula right away. There's something I want to check up——"

"In the formula you mean?"

"Er — yes."

"Well, that's different. If by waiting a day or two you think you can improve the formula, or correct any mistakes, all right. But understand my position, son. I've launched this Space Corporation and I have quite a number of powerful men lined up—but they won't part with a cent until they see the formula which makes space travel possible. Can't blame 'em for that. Until that happens I'm carrying the

financial load myself and it's a pretty hefty one. Three quarters of my fortune is locked up in it."

"Yes—Madge hinted at something like that. Suppose anything should go wrong, sir, and my formula doesn't work out as exact as I think. What would happen to you?"

There was a dead silence from the other end, then Morgan T.'s voice came through in grim deliberation.

"Just what do you mean by *that*? You told me last night that nothing *could* go wrong—and Madge told me the same thing. I rely a good deal on what Madge says because she's never yet led me up the garden."

"I—I just want to know the consequences if there should be a mistake," Dick explained rather weakly. "I—er— Everything is all right, far as I can tell, but——"

"Nerves, boy, nerves!" the magnate boomed, recovering his good humour. "The million and a half offer has knocked you into a flat spin, eh? Don't let it. You'll get used to handling money before you're much older. You'd better be *right* with the formula, that's all, because on the strength of it I'm committed to huge projects connected with the Corporation—and if the rest of the men involved don't tip up because of failure to deliver the formula and put things on a paying basis I'll be shorn of three quarters of my fortune. That, to a man in my position, is as good as being bankrupt! Anyway, let me know when you've worked out the details."

"Yes, yes, I will," Dick promised, and put the telephone back on its rest. Then he sat for a moment holding his head in his hand. Finally his eyes strayed to his equations on the scratch-pad. He pulled off the relevant leaves and pondered them, then stuffed them in his pocket. By sheer stubborn effort he continued with his designing—not only for the rest of the working period, but through each day. In the evenings and at lunch times he met Madge and she talked of the future whilst he remained mainly silent. Even Madge found her good temper considerably tried, for Dick would not explain what was really worrying him, and for a man who has been offered one and a half millions in money, and who has excellent prospects of getting it, it simply did not make sense to her for him to be so morose.

The reason for his long, absent-minded silences were to be found in the increasing mass of figures he had worked out—not at the Institute, but in his room in the private hotel he occupied. The figures would not have been intelligible to anybody but an expert scientist, which was one reason why he worked on them away from his colleagues. They might have grasped the point. In the hotel any chance sheets lying about would not have stirred a single thought.

Dick Meadows was, in fact, a young man much harrassed. He had discovered an astounding fact in regard to space travel, yet without actual space flight he could not prove it. And if he proved it right it might cause unparalleled disaster. He was in the biggest spot he had ever known and afraid to speak out in case the apparent surface absurdity of his theory gave him a short cut to a mental home.

So he went on designing, evading questions, and relapsing into infuriating silences. He knew he would have to speak finally, but until that occasion arose he was determined to blunder along somehow, working now on what he was quite convinced was a useless spaceship.

His most interested observer in the design was definitely Vince Clegg. Several times in the course of a day he would make an excuse to come and survey the design, and each time he found something added, until by the end of a week he was looking at the finished blueprints.

"Everything as the doctor ordered, eh?" he asked, as Dick sat moodily thinking. "Power plant, spaceship layout, and fuel formula . . . Very nice."

Dick did not say anything. He was not feeling interested enough to add that the fuel formula inscribed on the plan was only the normal formula used for rocket-recoil. His own special formula with the addition of inaxium was, of course, not mentioned—nor were the proportional quantities. That would have been giving away his secret for nothing.

"I have to hand it to you," Vince said, smiling, "you've got the best brains in this confounded Institute. When do you hand over this lot to the Government?"

"To-morrow. I've told Dr. Waterhouse I'll have finished the job to-night. Just a few things to finish off."

Vince nodded, then his own work getting neglected, he returned to his annex. Dick resumed his activities, straightening out odds and ends, and by the time he had finished towards twenty to eight that evening he had, in effect, one of the most efficient spaceships ever designed. His engineering genius had not failed him in this respect. The infuriating part was that it was all for nothing, if his figures were correct.

Wearily he glanced towards the clock and then gave a start. He had promised 7.30 as usual at the Corner House. As quickly as he could he scrambled into his hat and coat and raced from the laboratory, locking the door behind him. He could probably get to the Corner House by the short cuts before Madge made up her mind to chase after him.

He was hardly out of sight before Vince Clegg entered the building with his languid walk, feeling for his keys. Finally he sought out the night watchman.

"Oh, hello, Mr. Clegg. Thought you'd left for the night."

"I did go, but I've left an important plan behind in my annex and I've left my key back home. Let me in, will you—through the main lab."

"Sure I will, sir."

The night watchman shuffled along the corridor, opened the door Dick had just locked, and swung it wide.

"Thanks," Clegg acknowledged, and ambled in.

"Shall I wait, Mr. Clegg?" the night watchman asked.

"Will y'be long?"

"Mmmm?" Vince Clegg turned in mild surprise, apparently lost in thought. "Long? Oh—I don't know. Leave the key in the door. I'll lock up as I come out and return it to you in the entrance hall."

"Right y'are, sir."

The night watchman shambled off down the corridor, whistling noisily to himself. Clegg waited for a moment or two, then he crossed to the main door, took the key out of the lock, and closed the door gently. Next he slipped over the bolt.

Moving now with the urgent speed and the air of a man who has made his plans in advance, he hurried to the big drafting table whereon Dick had left his designs. Carefully,

Clegg spread each sheet out separately and then took a miniature camera from his pocket. In the space of fifteen seconds the ultra-fast film had photographed each design in detail. This done he returned the designs to their original disorder, picked up a sketch which was quite useless—but which made his visit here seem legitimate—and with it in his hand returned to the door. He was just switching off the lights with the door half open as the night watchman returned down the passage with a jug of steaming tea.

"Finished, Mr. Clegg?" he asked, and Clegg raised the rolled-up sketch he had in his hand.

"Everything I wanted, George," he responded, smiling, and handing over the key. "Many thanks. Good-night."

"Good-night, sir."

Clegg left the building without hurry, sketch roll in hand, his mind on the act he had just performed. Indeed he was so absorbed he failed to notice Madge Pearson approaching from the opposite direction. She called a "Good-night" to him, recognising his figure and the rakish angle of his hat, but he did not respond. Then she hurried into the building and tackled the night watchman as he poured out his brew.

"Mr. Meadows in the laboratory?" she asked impatiently.

The night watchman looked surprised. "Why, no, he ain't, Miss Pearson. Left some time ago— Nobody's there now. Mr. Clegg came back t'collect a plan or something and——"

"I know! I saw him leaving. Oh, confound it!" Madge stamped her foot impatiently. "I must have missed him somehow—— Good-night, George."

" 'Night, miss."

George scratched his head and then gave it up. It was so long since he had been romantic he had forgotten what it was like to feel anxious over a member of the opposite sex.

Madge, annoyed with herself, went quickly along the street in the direction whence she had come. She was half-way back to the Corner House when she collided with somebody at a corner.

"Sorry——" she began brusquely, then she relaxed as Dick eyed her in the lamplight. "Oh, so *here* you are!"

"Uh-huh. You chasing me and me chasing you. I didn't forget, but I got a bit behind-hand. I had the designs to finish. Let's get along to the Corner House."

Madge thrust her arm through his and walked beside him.

"No car?" she asked in surprise.

"Not to-night. Carburetter trouble . . . I don't suppose walking will do us much harm, anyway."

"But we'll need a taxi to get across and see dad. I'd have brought my own car if I'd thought you wouldn't have yours."

"See your dad?" Dick repeated slowly.

"Yes. He'd just come home when I left this evening and he told me to ask you to come over to-night. Between you and me I think he's a bit peeved about something."

"I daresay he is. I suppose you know about the offer he made me?"

"No. Did he make one? He only tells me as much as he wants me to know."

"One and a half million for fuel rights," Dick said gloomily. "And I had to refuse because I wasn't sure of my formula."

Madge came to a stop. "But—but you're sure *now*, aren't you?"

"Not sure enough to accept a sum like that for it," Dick responded, moving on again. "The way things are it's going to take me quite a few weeks to sort matters out. I've run into a sticky scientific problem and—— Well, I'll sort the business out in due time."

"So I should hope!" Madge exclaimed. "Dad isn't the type who likes to be kept waiting, especially now he's tied up so much money."

"I know—and I wish to heaven he hadn't. If only he had been twenty-four hours longer about it I could have stopped him."

"But why should you want to? Space travel is going to be the greatest achievement, the greatest commercial proposition of all time, isn't it?"

Dick did not answer. If he said outright that he had the growing conviction that space travel would *never* come

to pass he would at one stroke lose the affection of the girl he loved, bring untold fury down on his head from her father, lose his job with the Institute, and probably be branded as unbalanced into the bargain. So he kept quiet, because that was exactly what any man in his predicament would have done.

CHAPTER TWO

Vincent Clegg did not return to his town apartment when he left the Scientific Institute. Instead, still with the air of a man who has prepared everything in advance, he went to a telephone.

In response to his call a private car picked him up and drove him swiftly to the airport. His ticket, already bought, permitted him to travel to a European destination. Towards midnight he arrived at the European airport and another car swept him through dark countryside and unfamiliar lanes and roads, terminating its journey at a residence standing in complete isolation.

An inscrutable manservant permitted Clegg to enter the house and he found himself ushered into a library wherein the lights were gentle and the furniture opulent. Seven men were waiting, seven men with varied kinds of faces, yet all having one obsession in common . . . avarice.

"Good evening, Mr. Clegg," one of the men said, and rose with extended hand. "I trust your journey was comfortable? We were informed of your coming, naturally."

"How are you, Herr Gunther?" Clegg returned the handshake, then with a slight inclination of the head to the rest of the assembly he added, "Gentlemen . . ."

Otto Gunther, German-born baron of industry, but no longer serving the country of his birth as much as he was serving himself and his immediate contemporaries, was a typical Prussian. Square-headed, with grey hair like plush, thick-lensed glasses, and a voluptuous mouth. He was squat, massive-shouldered, and moved with a ponderous deliberation. There was a ruthless determination about him which was almost frightening. Yet for all his power and influence Otto Gunther was not a war-maker. He was concerned only with big business and international disruptions were decidedly unfavourable to him.

"I assume you have the plans of the spaceship?" Gunther asked, his lenses gleaming; then with a heavy laugh he apologised. "Foolish of me! Of course you must have them otherwise you would not be here."

Clegg removed the micro-camera from his pocket and handed it over.

"In here, Herr Gunther. Get the spool developed and see for yourself. I had to wait until to-night so that the drawings could be completed. I am sorry to have delayed so long."

Gunther pressed a bell-push and in the brief interval which followed Clegg felt oddly self-conscious with the naked stares of the other men in the room nailed to him. It was a genuine relief when the iron-faced manservant entered.

"We will take port, Crespian," Gunther stated. "And afterwards have Carl develop this as quickly as possible."

Without a sound the butler poured out the wine and handed it round on the silver tray; then again without a sound he took his departure, the camera in his hand. Gunther smiled a little as he considered the ruby fluid in his glass.

"A manservant who cannot speak, gentlemen, is a decided asset," he commented. "He is so much less likely to talk in an unguarded moment. I believe it was because he once talked too much that he lost his tongue. Unfortunate for him, but of great benefit to me."

Silence. The eyes were still fixed on Clegg as he now sat in one of the deep armchairs, the port in his hand.

"I am becoming remiss," Gunther commented. "I should have made it clear, gentlemen, that this is Mr. Vincent

Clegg, one of our most trusted international agents. English-born and therefore incapable of suspicion when amongst his fellow countrymen. Mr. Clegg, however, is no lover of his own country, any more than I am a lover of mine."

"My country," Clegg said, his usually genial face changing its expression, "condemned my mother to death twenty years ago for a crime which she did not commit, and of which she was proved—posthumously—to be innocent. How *could* I love a country which could do that to my mother? I grew up as best I could with relatives and learned that one thing which seemed to matter—science. I had only one aim, and still have. To see my country *last* in the scientific race for progress."

"Through various by-paths he came into contact with me," Gunther explained. "I was instrumental in placing him in a high position in the British Scientific Institute, wherein are born all the new wonders of British science. Mr. Clegg has sold us many useful secrets and added to his finances thereby—but when he learned that space travel on a really commercial basis was being planned by the Institute—and by the man whom he counts as his closest friend—it became obvious that the plum was about to fall into our lap!"

"And it did!" Clegg gave a grim smile and finished his drink. "Those plans are complete, gentlemen. Richard Meadows, the scientist responsible for them, told me so himself. If we work fast, as we will, we can outstrip the British Government in launching a world space-line. With a head start like that no other country in the world will ever catch up. I am handing you the monopoly of space. Rival lines will appear, of course, but by then we shall be established. We have got to be. Upon that depends success."

"The British are notoriously slow," Gunther commented, with a chuckle.

"You believe, Herr Clegg, that you have stolen this secret in perfect safety?" one of the assembly asked, a faint inflexion in his voice.

"I believe so. I am a trusted member of the Institute, and have been for many years despite M.I.5 and their pro-

fessional snoopers. Herr Gunther has things so wonderfully organised on both sides of the Channel I could hardly make a mistake—except by some utterly unforeseen occurrence . . . I am convinced I am above suspicion."

"And when it becomes known to the world that the European Air and Space Combine has the *same* secret as Britain?" another of the men enquired. "What then? It will immediately become known that information has leaked out of the Institute."

Clegg shrugged. "Blame, if any, will attach to Meadows himself, I imagine. Certainly not to me."

The men glanced at each other and smiled and Gunther himself poured more wine. Then when all glasses were replenished he held up his own.

"A toast, gentlemen—— To the European Air and Space Combine, the gateway to the stars! We have at last a practical method of reaching the void, thanks to the genius of one Herr Richard Meadows. A pity it had to be an Englishman, but credit where it is due . . ."

Gunther and his colleagues swallowed their drinks, then the German's heavy lenses turned in Clegg's direction.

"I neglected to mention, Mr. Clegg, that these gentlemen represent the proposed European Air and Space Combine. Naturally they wish to see the plans before they—er—join forces with me."

"Naturally," Clegg agreed, then noticing that time was advancing and remembering that he had to return to England to resume his normal duties and habits the following day he added, "I assume, Herr Gunther, that when the negatives are in your possession my particular assignment has ended and I may expect your bank draft?"

The German smiled. "We shall wish to try the spaceship in model form first, of course—or maybe in the form of a full sized machine with a test pilot. Once the plans are proven practical then of course there will be no difficulty. In a matter so important as this we must be *sure*."

"Yes . . . Yes, naturally." Clegg sat back, wondering how long tests would take. He did not like being a lapdog for Herr Gunther and had made up his mind that with the

big sum due him for this latest betrayal he would, if possible, withdraw from the toils.

"You need have no fear," Gunther added. "The draft will be made payable in the usual way so no suspicion can attach to you—for that would also get us in trouble with the European Federal Authorities . . ."

There was a tap on the door and the manservant returned, a roll of negatives hanging from his hand like a shiny snake. He laid it on the blotter of the desk and departed again. Immediately Gunther picked up the roll and peered at it through a magnifying glass. His colleagues rose and gathered about him, gazing each in turn.

"Excellent, at first sight," Gunther commented. "But let us be certain . . ."

Turning aside he clamped the negative between two glass sheets and bound them together with brass pegs. Then he slipped the elongated slide into a still projector and switched it on. On a cream recess at the further end of the library a vastly enlarged image of the negative appeared, pin-sharp in every detail. It became even more so when Clegg rose and switched off the ceiling lights.

"Splendid! Splendid!" Gunther declared, when each negative in turn had been studied. "You have done excellently, Mr. Clegg. Our engineers will make copies immediately and a test spaceship can go into production right away. I understand the British Government will also have *their* plans—the originals—delivered to them to-morrow?"

Clegg nodded and Gunther pondered for a moment. Then whatever problem was worrying him he threw aside.

"We will be first," he decided. "And immediately after a successful test you will hear from me, Mr. Clegg. In the meantime keep a close watch on developments — and thank you."

Clegg shook hands and departed shortly afterwards. There seemed to be nothing he could do at the moment but hope for the best. Gunther had never failed to pay so far, but what would happen now he had such a vast commercial secret in his hands Clegg did not know. As he was returned

to the airport in the big private car Clegg had the uncomfortable feeling that he had perhaps sold not only the greatest discovery of all time, but himself as well . . .

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When, in the company of Madge, Dick faced Morgan T. at his home after the usual Corner House *tete-a-tete*, he was in anything but a comfortable mood. The thing he feared most was the devastating directness of the tycoon which might jab him into statements he did not wish to make.

Morgan T., however, seemed to be in a tractable mood. He was not so much annoyed as puzzled—and said so. Then he stood beside the huge fireplace and looked down on his daughter and Dick as they sat side by side on the chesterfield.

"I do *not* understand," Morgan T. declared, "why you made a mistake in your original formula. How *could* you? The Government would never have commissioned you if their engineers had seen a flaw in your figurings. They must have had specimens to study before the powers-that-be contacted you."

"Yes, sir, they did. Specimen drawings, outlines, everything except my own vital fuel secret. They were perfectly satisfied with my design, a great improvement—so they said—on anything conceived so far. New nullifier system, a method of overcoming initial inertia in the take-off, special air-regulation and repeller screen devices. The fuel they accepted as being all I claimed. That they could easily do since, if it isn't, I don't get paid."

"Which means *they* expect to get the fuel formula?"

"You know they do, sir. You heard of their offer yourself."

"Yes, but——"

"They won't get it," Dick said. "They only commissioned me to build a space machine capable of taking my fuel, but the contract does not specify they shall have the fuel secret as well. I assume they took it as a matter of course

that I would sell the formula to them. If I sell elsewhere they will be compelled to buy it from that source."

"If you sell elsewhere? Dammit, boy, don't I keep telling you I want it? What's all this hedging *for*? You say all the figures have been checked and proven right. So——"

"Figures for the spaceship, yes. Not for the fuel. They couldn't be since I've kept it secret. As I said, the fuel was taken as being all I claimed."

"And you swore it was—and you too Madge—the night before I launched my Space Corporation. Now all this has happened since and I can't get a word of damned sense out of you, Dick! Where is the mistake? In the fuel?"

"Er—yes." Dick looked up hesitantly and then down again.

"You don't sound too confident about it! For heaven's sake come into the open! I'm a business man and must know where I stand. On the strength of your statements, which I trusted, I've got millions tied up. If something has gone wrong which can never be rectified and space travel can't be done after all I'll be bankrupt. That's the top and bottom of it."

Dick hesitated and then looked up directly, his jaw lean and taut.

"All right, I'll explain," he said. "But if I sound hazy it's because I'm still grappling with the tremendous scientific issues involved. Straight away, sir, let me put your mind at rest about the fuel. It is all I claimed for it——"

"Ah!" Morgan T. beamed. "I knew I wasn't mistaken in you, boy. This calls for a drink——"

"But just the same," Dick added, "I do not believe space travel will ever be accomplished."

The financier, who had half moved to the cocktail cabinet, paused and turned. Blank surprise was on his face.

"Never be accomplished? But—why the devil not?"

"That," Dick answered deliberately, "is what I am working on. It involves scientific premises both old and new, the linking of known facts with postulates which, as yet, are only vague. I think I am on the verge of discovering a

law about planets which explains why no interplanetary visitor has ever come to Earth . . ."

Morgan T. waited, his mouth a steel trap.

"The Universe must *have* intelligences far greater than ours," Dick continued. "We on this silly little planet are not the be-all and end-all of intelligent life. Of that any sane person must be convinced. Yet not *one* has ever come to exchange information. I believe one such race did so—and to-day we see the result! No—I think *two* races tried, maybe three."

"What are you talking about?" Madge asked, bewildered.

"I'm talking about Mars, the asteroids, and the Moon. At some time in the past all those three worlds—for the asteroids once comprised a world—were inhabited. Each in turn tried space travel and see what they got. The Moon is dead and airless. Mars is a wilting graveyard of sand and dehydrated air. And the asteroids are the pieces of a world destroyed."

There was grim silence for a moment. Then the financier said haltingly:

"And you actually think that space travel could reduce three planets to annihilation and near death?"

"I do."

"But—but why? And, knowing this, why did you ever design a space machine?"

"I didn't know it then," Dick said urgently, leaning forward. "The horrible possibility leapt upon me on the night Madge and I saw a shooting star."

Morgan T. was commencing to look dazed. He sat down heavily and stared.

"I'm no scientist. What has a shooting star got to do with space travel?"

Dick got up from the chesterfield and began to pace up and down uneasily.

"I think," he said, as he moved, "that shooting stars have been warning man for centuries that space travel cannot be accomplished, but no man has happened to quite understand. I don't claim any particular genius in this direction: it just happened that I saw, clearly, the whole horrible possibility. I formed a scientific theory, which I

am now in the midst of working out. Just in the same way that Newton realised the truth about gravity when he saw the apple fall. Millions of people had seen apples fall before that moment and thought nothing about it. To him was given a momentary insight—— Just as it was given to me.”

Morgan T. looked at Madge and she looked back at him. They neither of them spoke, knowing Dick Meadows’ immense scientific capabilities. *Something* had occurred to him, and it was quite beyond their understanding.

“A long time ago,” Dick resumed, “a Dr. Fred L. Whipple of Harvard University studied shooting stars over a long period. This fact recurred to me when I was working out my own theory. He wanted to know why shooting stars light up . . .”*

“That’s an easy one,” the tycoon said. “Atmospheric friction does it.”

“So everybody believed, before Whipple—and so they *still* believe because his theory was not given the consideration it demanded. Whipple pointed out that shooting stars are supposed to glow white hot, at a temperature of over two thousand degrees, because of friction, but he *also* pointed out that the friction would slow down the moving chunks of iron to a speed commensurate with the degree of heat obtained. When he examined the matter and checked the speed of shooting stars he found that they did not slow down even enough to make them warm, let alone hot. Which means their white heat comes from elsewhere.”

Morgan T. began to get a grip on odd pieces in the puzzle.

“What you mean, boy, is that a spaceship—which is the reverse of a shooting star—might become white hot in the same way and burn up everybody inside it?”

“That is one possibility,” Dick admitted. “There is also another one—much more terrible and embracing. I still have to work it out. I can’t piece a theory like this together immediately, any more than Newton could work out the Theory of Gravitation in a few hours. It may take me months, even years . . .”

*Acknowledgements to John O’Neill’s *Prisoner of Fire*. V.S.

The financier got up from his chair. He put a hand on Dick's shoulder.

"Look, boy, I know you are first and foremost a scientist, and not a commercial man. You calmly speak of taking months to satisfy yourself about this theory of yours—but what happens in the meantime? To-morrow you hand over your completed space machine to the Government, and the first thing they will do is have a machine built and tested."

Dick shook his head. "They can build, sir, but they cannot test—not without my fuel."

"You mean you are handing them a vessel which is quite useless?"

"They asked for a space machine made to use my fuel, and that is what they are getting. They took it as a matter of course that I would negotiate with them about the fuel when the time came. With true departmental lack of foresight it did not dawn on them that somebody else might make an offer for the fuel in the meantime."

"I am not so sure," Morgan T. said slowly, rubbing his chin, "that you have acted in very good faith, Dick. Oh, I don't blame you because I know how notoriously unbusinesslike you are——. But don't you see? The Government assumed the fuel would be theirs because only the Government knew such a fuel existed! They were not aware that I am your prospective father-in-law."

Dick shrugged. "It's my fuel and I can do as I wish."

"True, but there will be a fearful row. It won't do your name any good. It's a roundabout way of cornering the market."

"The Government will have to buy the fuel through you," Dick said. "That's the plain answer. They'll still get it—but you will control all the rights in it and, of course, will make your profit. The Government shouldn't be so short sighted as to think they are the only pebbles on the beach."

Morgan T. became silent again, musing. Madge got up from the chesterfield and caught Dick's arm.

"Dick, all this big business apart, what happens if you do find that space travel can't be done? Will it mean ruin and disgrace for you, and maybe dad too?"

"I'm afraid so," Dick answered quietly. "But I don't

blame myself because I acted in good faith. I only happened on this startling theory afterwards—and there is still the chance I may be wrong. I shall do all I can to stop the Government making an experimental test for a while. I'll hold them out on the fuel issue which is reason enough for their keeping an experimental machine grounded. In any case they will take some weeks—even months over building the machine."

"And I get the fuel formula in the meantime?" Morgan T. asked. "That can be done, surely, since the fuel is okay?"

Dick shook his head. "I can't do that either, sir. The Government would very soon know you had got the fuel and I could no longer hold out on that issue. There'd be a row, and then negotiations to buy fuel from you. Next would come the test and then—— Well, I don't know. I have to work it out."

"Tell me something," Morgan T. said. "Can't this machine even move without *your* fuel? Is it so exclusive as that?"

"Ordinary fuel *can* be used—fuel of the most expensive atomic by-product kind. In fact I have given that formula on the blueprints—the generally accepted fuel. But it will be enormously costly and it won't improve the power-plant either, which is designed mainly for my own fuel."

"You can take it from me," the tycoon said deliberately, "that within a month, or less, the Government will have that experimental machine flying, on ordinary fuel. The expense won't matter: it never does to a Government. What happens then?"

Dick was silent, a drawn look about his mouth.

"I must try and stop them. It may bring about the death of the test pilot running the machine——"

"They might remote control it by radio for the first run."

"They mustn't fly the thing at all, until I'm *sure*!" Dick banged his fist on the desk. "There is a reasonable possibility they might blow this entire planet to pieces!"

Morgan T. gave an incredulous smile and Madge laughed a little.

"Come now, Dick—your scientific imagination is getting

out of hand . . . And if things *are* as serious as that it's your duty to say so to the authorities concerned. Get other scientists to help you, to check your theory, to——"

"I can't without my theory worked out!" Dick nearly shouted. "No scientist, Government, or organisation is going to listen to a theory like this without logical proof—and I haven't got it! Weeks, months, years maybe, before I'm sure! What *am* I to do? I can only trust to luck that I'm wrong—and if I am not I may bring untold disaster down on everybody on this planet! I tell you the whole horrible possibility is driving me crazy!"

"Take it easy, boy." Morgan T. sounded embarrassed. "Stall the Government all you can and work like hell to be sure of your figures, then hand them to the right quarter for checking. As for the fuel formula, I will hold out as long as I can until you release it to me. You must do that in the end—you must!"

CHAPTER THREE

Had he not been corroding mentally with the increasing worry of his theory, Dick could have been the happiest man alive the following morning. Dr. Waterhouse, conscious of the immense importance of the moment, had the main lecture hall opened up for the presentation of the space machine plans to the Government representatives. Whether he liked it or not Dick had to sit on the rostrum with the big-shots and hear the eulogy of Dr. Waterhouse as he described him as one of the foremost scientific technicians of the century.

The Government men, complacent but attentive, contented themselves with beaming paternally upon the haggard young man. In the body of the hall the Institute's techni-

cians clapped, and Vincent Clegg clapped louder than anybody.

Finally Dick rose to his feet, the designs in his hand.

"In handing these designs over to you," he said quietly, and gave them into the hand of the leading representative, "I have no thought of payment for my work——"

"Of course not," the representative agreed, with an indulgent smile. "You are thinking only of the huge step mankind can now make."

"No." Dick shook his head. "I am thinking of the mistake mankind may make by trying to fly into space at all."

The men on the rostrum looked at one another in surprise and in the body of the hall there was silence.

"I am not confident of my design, even though I have worked it out to the best of my ability," Dick added. "I would prefer that you delay experimental tests for a week or two and——"

"Such nonsense, Mr. Meadows," the Government man smiled. "Like all men who achieve a high peak you are absurdly modest. Our own engineers, who examined your original sketches, are completely satisfied. Have no fear, the first machine will be on its way to the Moon within a month. There remains only the matter of the fuel to be settled, and I am sure we can agree on that despite your——er——diplomatic fencing on our first offer."

Dick laughed rather uneasily, and for a few moments there was a tremendous if rather artificial good humour amongst the men on the rostrum. The meeting ended on a "For He's a Jolly Good Fellow" note, then Dick found himself cloistered in a private office of the Institute with the Government men around him. He fidgeted uncomfortably, immensely aware of his short-comings now it had come to real business.

"You turned down our offer, Mr. Meadows, of a million pounds for all rights in your rocket-fuel," the Government man reminded him.

"Er—yes, I did. It was not made direct but through Dr. Waterhouse and——er—— Well, I didn't feel sure."

"It was not a firm offer, otherwise it would not have been made through Dr. Waterhouse. We were—scouting, shall we say? One million is not a fixed price. But there is something you must bear in mind, Mr. Meadows. Financial return on this rocket design and for the fuel which drives it cannot be given until we have made a test. You understand that?"

"Of course."

"Very well then. We shall need enough fuel for an experimental test. You can supply that for us, I take it? You will lock it in the power chamber so nobody but you yourself can remove it. That makes it impossible for anybody to analyse the stuff. Naturally only trusted workers will be employed, but there are spies amongst the best of us."

"Analysis of the fuel, even if it happened, would be no use to that person—in this country anyway," Dick replied. "It is protected by patent rights."

"Mmmm—quite so. Then we may expect enough fuel for an experimental test?"

Dick shook his head. "No. I don't *want* you to test the machine yet until I am absolutely confident of the design. I meant what I said on the platform."

The Government representative looked momentarily annoyed, then his expression cleared again.

"Our engineers will check the details, Mr. Meadows, and if they are satisfied then a test will follow. If you do not supply the fuel, then the test will be made with the usual atomic by-products. . . ."

And that, as far as Dick was concerned, ended the matter. And it also meant that he had got to satisfy himself concerning his theory. If he could prove himself wrong all would be well—so he asked for, and was freely given, a fortnight's vacation after his labours. Except for his daily meetings with Madge, during which he could only say he was working every hour of the day upon his figures, he permitted himself no relaxation.

He did not work in his hotel room but in the science section of the public library where he had all the necessary

reference books to hand. Hour after hour, day after day, to the wonder of the clerk keeping an eye on the library's visitors, and the further he probed and analysed his postulations the more downcast he became. At the end of the fortnight he knew he had *not* been wrong and there was nothing else for it but to make the facts known and save what might prove an unparalleled disaster for mankind.

He was on his way home to his hotel room in the early dusk when it dawned on him what the newsvendor nearby was calling. Puzzled, he paused and listened.

"Fifth Edeeshon—Spaceship Crashes in Europe—Fifth Edeeshon——"

With a start he turned and fished for some money, nearly snatching the paper given him in return. He had no need to search for the news item: it was blazing in headlines:

SPACESHIP CRASHES IN BAVARIA AFTER TEST

Lost to everything, regardless of the people moving to and fro around him, Dick read the news item through under a street lamp—not once, but several times.

Late last evening an experimental spaceship of the rocket type, fired by an unknown group of scientists, crashed in Bavaria and burst into flames. The test-pilot within was burned to death and his charred body only rescued this morning. The spaceship incorporates many new devices, according to experts who have examined the machine, not least of the improvements being a new nullifier system, a method of overcoming take-off inertia, repeller-screen devices, and so on. The remarkable similarity of this smashed machine to the one recently completed at the Scientific Institute by Mr. Richard Meadows is now being investigated.

Dick lowered the paper at last, completely dazed. He hardly remembered walking back to his hotel room, but once he got there he was jerked to consciousness abruptly by the realisation that within his room there sat two grim-faced men who rose as he entered.

Dick hesitated, noticing that the lights were on and that the men had an official look about them.

"Mr. Richard Meadows," the taller one inquired, and as Dick nodded bemusedly, he saw a warrant-card extended

towards him. He did not read it all, but his mind anchored onto the phrase—*Metropolitan Division, M.I.5. Chief Inspector Hawkins.*

"Police, eh?" Dick asked finally, closing the door. "And I suppose it's about this?"

He held out the newspaper so the headlines could be seen and the Chief Inspector nodded.

"That's right, sir. There are a few questions we wish to ask you down at headquarters if you'd be good enough to come along——"

"On what grounds?" Dick snapped, feeling this was about the crowning blow in a downhill run of bad luck.

"I have a warrant for your arrest, Mr. Meadows, for conspiring with an alien power whilst committed to the British Government."

"What you mean is, you think I sold out my invention to some damned European concern instead of keeping faith with my own country? Well, I didn't——!"

"It's not my job to think anything about it, sir—only to obey orders. If you'll kindly come with us?"

Dick flung down the newspaper savagely and opened the door again. He had no alternative but to be accompanied by his tight-lipped, silent guards as they went downstairs to the car waiting them. Ten minutes later Dick was in the private office of the Assistant Commissioner, and with him was Dr. Waterhouse of the Scientific Institute. Also present, to Dick's inward surprise, was Morgan T. Pearson.

"All right," Dick said bitterly, as he was motioned to a chair, "start flinging accusations at me!"

"Technically, Mr. Meadows, I am not supposed to give you the chance of speaking in private like this," the A.C. said, "and I am only doing it all because these two influential gentlemen have asked me to, and also because you yourself are a much respected scientist——"

"What the devil's the *meaning* of it, boy?" Morgan T. burst out. "The moment I read of this spaceship business in the paper I threw all secrecy to the winds as far as I am concerned and rang up the Commissioner here to dis-

cover if M.I.5 was acting in the matter. He told me you were going to be arrested. I then got in touch with Dr. Waterhouse, and we agreed we should both have a word with you. Dammit, do you realise what's happened?"

"I'm not an idiot," Dick answered sullenly.

"Did you sell out to Europe, or didn't you?" Morgan T. demanded, with complete lack of tact.

"I did not! Surely you know me better than that?"

"Can you prove it?" Waterhouse asked anxiously.

"Off-hand, I don't see how I can. But I didn't sell out. I kept faith with the Government, . . ."

Morgan T. breathed hard then laid a hand on Dick's shoulder.

"Listen to me, boy. I don't think you realise what sort of a spot you're in! To be accused of selling a design like yours to an alien power, who might use it for war purposes—since it would make bombing from the void possible—is tantamount to treason."

Dick sprang up. "I tell you I didn't do anything of the sort!" He glared about him. "What more do you want? Haven't I enough on my mind without being accused of a thing like this?"

The three men did not speak for a moment; then Morgan T. cleared his throat.

"In the absence of proof that you did *not* sell out to a foreign power whilst you were also designing for the British Government you will be faced with very awkward problems from the prosecuting side. Your refusal to sell your fuel secret, for one thing. The sum of a million from Britain you turned down. You turned down a million and a half from me— Yes, yes, I admit it because this is coming into court and I'll be compelled to speak. The prosecution will say you did not sell to us because you had already sold to Europe."

"I didn't! The spaceship crashed anyway, and it wouldn't have done with my fuel."

"You mean it would make a pilot infallible?" asked the A.C.

"Well, not exactly, but——"

"It *could* have crashed," the A.C. said coldly. "Either with your fuel or without it . . ."

Which was only one of the shafts flung by the Public Prosecutor when Dick stood trial. In fact everything seemed to be against him. The fact that the Bavarian spaceship had included all the details which he himself had sketched out was the most damaging thing of all, and since all the fuel had been destroyed in the crash it could not be proven whether ordinary fuel, or his own special mixture, had been used. So this did not hang together either. He was accused of deliberate evasion when he had refused to sell the fuel either to the Government or Morgan T. Pearson, and he was also accused of deliberately trying to hold up Governmental experiments with the test ship by saying he was unsure of it, so as to give his European allies a chance to be first.

The defence argued that no man would have deliberately allowed the alien country to achieve success first because that would have made it clear where they had obtained the ship's design. To which the prosecution responded that they would never have revealed the design anyway. It had only been discovered because independent experts had examined it after it had crashed. And now the Europeans responsible were disowning all knowledge of a spaceship and nobody could track them down.

So it went on, through several weeks, back and forth, with all available witnesses being called. Dick's character was smeared and whitewashed by turns, but because he could not prove anything in his own defence he was finally beaten. The only thing in his favour was that the sale of the secret fuel to an alien power was not definitely proven, even if the details of the machine itself coincided. So the ultimate penalty was withheld, and he received a sentence of fifteen years imprisonment instead.

He took the edict in stony silence. Several times during the trial he had been on the verge of relating everything he knew in regard to his scientific theory in the hope it might have explained his real reason for "stalling" over selling his fuel formula—then the relentless way he had been torn

to pieces had changed his outlook. He did not particularly care what happened. Probably nothing would—as far as humanity being imperilled was concerned—for apparently his machine would not rise properly without the correct fuel to power it. There could be no other explanation, as far as he could see, for the Bavarian crash.

So, in the quietness of his cell—which so far he was not sharing with any other inmate—in the State Penitentiary he was left to think things over. The disasters which had overtaken him had left him a soured, embittered young man . . . And, as free as ever in the outer world, Vincent Clegg received orders by devious sources to report at the earliest moment to Herr Gunther. Clegg obeyed, making business his excuse for travelling. Not that he was being watched as far as M.I.5 was concerned. With the imprisonment of Dick Meadows the case of the spaceship plans had closed.

Clegg found Herr Gunther in the bitterest of tempers even though his phlegmatic Teuton temperament kept him from an actual outburst. But fury was in his taut pacing of the library and in the glint of his eyes behind the thick lenses.

"Naturally, Herr Clegg, you receive nothing!" he kept declaring, over and over again, flattening his thick hand out palm down in front of him. "You brought us a useless design, and we had it transformed into a machine at record speed. . . . And what happened? We used the best test-pilot we could find, one whom we knew would never speak of his assignment—and he crashed when only fifteen miles up in the sky! It was no fault of his which caused that. It was some mechanical flaw in the machine! You gave us the plans before they were complete, Herr Clegg!"

"I would have been a fool to do that," Clegg retorted. "To the best of my information the plans were absolutely perfect. I had Meadows' own word on it—but since then there has been the trial, of which you've read, I suppose."

Gunther nodded, his voluptuous face grim.

"Then you will know of a secret fuel which Meadows possesses. I believe his machine was made exclusively for

that fuel which is one reason why it won't operate properly with normal atomic by-product. I did not know of it. I assumed the fuel formula he had given on the plan was correct. . . . In fact nobody knew of it save the Government and a financier named Pearson. It would still be kept from public knowledge, probably, but for the trial."

Gunther reflected. "So that is the situation? I wondered as I heard of the trial if the fuel was perhaps wrong. And what is the British Government doing about it? You must be aware, to a great extent, of their moves."

"Not as aware as I'd like to be—but as far as I can gather they are holding up test experiments on this projectile while their engineers work out more details. Unfortunately, *your* disaster warned them that something must be wrong, so they are trying to find the defect."

"I see. Very well then, Herr Clegg, I will give you a chance to redeem yourself, and if you do you will receive payment as arranged. If not . . . Well, naturally, we have little use for a man who blunders because blunderers sometimes talk." Gunther grinned widely, and it made his face more repulsive than ever. "It would appear that the fuel may be the stumbling block so it is up to you to find out what the fuel formula is."

"An unlikely prospect, Herr Gunther, with Meadows in jail and refusing any information to either the Government or anybody else!"

"You have your instructions," Gunther answered coldly. "I would suggest you follow them out. . . ."

So Clegg returned to London and resumed his activities in the Institute of Science, Biological Section, and wondered how best he could go to work to find out something. Once he toyed with the idea of contacting Madge Pearson in a friendly way and trying to find out if she knew anything. That she had been engaged to Dick Meadows before his imprisonment he knew full well—and indeed he counted the girl amongst his friends. But things were different now. She had apparently abandoned Dick entirely and would hardly be in a mood to speak of anything connected with him.

As things worked out, however, matters solved themselves for Clegg. Some three weeks after Dick had been committed to the penitentiary Clegg received an order to present himself in the chief's office. He did so with some trepidation, not at all sure of the reason for the summons. He wondered if a mistake somewhere had started to leg him down——

But he found Dr. Waterhouse all smiles.

"Ah, Mr. Clegg, come in," he invited. "Do sit down. I'd like to put a proposition to you."

Clegg seated himself and waited, smoothing back the black hair from his intelligent forehead.

"I see by the records, Mr. Clegg, that you have been with us for seven years now, and have done some remarkably good work in the biological department."

"Thank you, Doctor. I've enjoyed every minute of it."

"So you should, as a true scientist." Waterhouse sat back in his chair and considered. Then with rather more hesitancy he continued, "My colleagues of the Board and I have been discussing the matter of a successor to Mr. Meadows. I find it painful to bring up the subject because I think Meadows received a raw deal—— However, that is beside the point. The Board thinks, and so do I, that you would make a worthy successor to Meadows. You are a good all-round scientist and have been with us long enough to be trusted——"

Clegg smiled modestly. "I appreciate the offer, Doctor, but I am not in the same field with Dick. He has genius. I am just a plodder."

"Be that as it may, we are satisfied that you can carry on in his place."

Clegg, as he thought matters out, wondered vaguely which member of the Board was in touch with Gunther to have brought about this opportunity.

"What assignment would I get?" Clegg asked finally. "Dick received assignments which would be quite beyond my powers and I am afraid——"

"That brings me to the point," Waterhouse intervened. "Let us forget for the moment that both Europe and Britain have——either through Meadows' agency or somebody else's

—a space machine to Meadows' specification. And both countries are hamstrung for exactly one reason: fuel. Our engineers are satisfied that the machine is as perfect as Meadows claimed, but it will not climb into the void without the special fuel he devised for it. Apparently Europe does not possess this fuel either else they would surely have used it by now and been trumpeting their success to the world. In other words, without the fuel we are grounded, and all efforts to make Meadows give his formula to us have failed. He has even taken the stand that now he is in jail he has forfeited all civil rights and cannot be paid for his formula, so refuses to part with it. The Patent Office have a copy of the formula, of course, but are powerless to help under their Oath of Secrecy. That is the situation we face. A perfect space machine, the most beautiful spaceship to ever be designed by the brain of man—and as useless as a Roman chariot in the Strand."

"I don't see how I can help," Clegg said, determined not to sound too eager.

"You knew Meadows well," Waterhouse resumed. "He was one of your best friends. Surely, as his machine progressed on the designing board, he mentioned at some time a few relevant facts about his fuel?"

"Not that I recall."

"Well, the authorities have taken many of his notes and records over the past few years, for legal purposes, and they are now in our possession again. Our scientists have been through them but can't see daylight. I am wondering if *you* can, chiefly because you had the chance of watching the designs grow . . . Some chance remark may come back to you if you concentrate. You may even find, from the notes, a clue. Whatever happens, we *must* have that fuel. It is unthinkable that such a mighty achievement should be held up because of one man's obstinacy! We can be sure that at this very moment European scientists are moving heaven and earth to solve the fuel problem. The very design of the power plant may suggest something to an experienced mind."

"True, true," Clegg admitted, thinking. "And supposing I should happen on the formula, can we use it? If it is covered by patent rights in Dick's name we can't use an identical formula without incurring a heavy penalty."

"If we find the formula and it *does* coincide with the one in the Patent records, Meadows will have a sum deposited in his bank for his use when he leaves jail—and it will be a sum which we consider fair considering the trouble to which we have been put."

"I see. Yes, that would solve the issue . . . As for myself, I assume I do not receive any special credit if I discover the formula?"

Waterhouse smiled. "The formula is still Meadows', even if it is re-discovered. But you will not be forgotten for your work, Mr. Clegg, believe me . . . Well, would you care to take over? You know the salary details."

"I'll take over." Clegg got to his feet and shook hands on it; then a thought seemed to strike him. "There is one other thing I would like to get clear, Doctor. At the trial, Morgan T. Pearson made it very clear that he too was bidding for the formula rights and had not got them, any more than the Government. What happens to *him* if the formula is re-discovered?"

"He does not enter into it," Waterhouse answered. "I'm afraid Mr. Pearson overstepped himself badly by rushing in as he did. I suppose it would have been all right had things not taken such a dramatic turn in regard to Meadows—but as matters are now the Government own the spaceship and *they* have the right to the fuel. Morgan T. must suffer the consequences of his own miscalculation."

Clegg nodded. "I understand. Very well, Doctor, I'll take over my new duties, spend to-day familiarising myself with general routine in Dick's department, and then to-morrow I'll go to work on the notes and records if you'll have them sent to me."

And with that he left, mentally rubbing his hands in satisfaction. He had not the slightest doubt that somebody on the Board possessing powerful influence and contacts with Gunther had engineered him into the position—— But that

did not signify. He had the open opportunity of hunting for the very thing he wanted, and if he found it the British Government would still be the losers. Credit for re-discovering the unrevealed formula was not what Vincent Clegg wanted. He wanted money, and a lot of it. With the formula as his bargaining weapon he could most certainly get it . . .

CHAPTER FOUR

The appointment of Vince Clegg to the position Dick Meadows had formerly occupied was important enough to gain notice in the dailies, and Madge Pearson was one of the many who spotted it. When her father came home that evening she pointed it out to him, at dinner.

"Well, what of it?" he asked curtly. "Somebody had to take over Dick's job, hadn't they?"

"You don't have to be so touchy, dear," Mrs. Pearson reminded him mildly. "After all, Madge is only pointing out an item of interest."

"Interesting to her, maybe, but not to me!" Morgan T.'s mouth closed with a snap. "The less I hear of Dick Meadows, or his successor, the better I'll like it. I haven't got the taste of his conviction out of my mouth yet."

"You don't believe he *really* betrayed the Government, and you, do you?" Madge asked quietly.

"I don't see what else I can believe."

"I think he got a raw deal," Madge said, thinking, "but I can't think of any way in which to prove it."

"You'd better not try," her father warned her ominously. "The thing's over and done with—but the scandal of it hasn't yet died down. The fact that he was engaged to you makes it all the worse and reflects obliquely on me. I've had quite enough of that young man, thank you! Because of him I've founded a useless Space Corporation and dropped

a large part of my fortune down the drain. Or I will have if there isn't a dramatic turn soon. If only he'd let me have that *formula* . . ." Morgan T. sighed, and gave it up.

But not so Madge. The next day was visiting day at the penitentiary and she made it her business to call on Dick for the first time since his imprisonment. He eyed her in vague distrust when they met under the cold gaze of a warder. She had not renounced publicly her engagement to him but he assumed his connection with her had ended.

"Well?" he asked briefly, after she had studied him for a moment or two. "Satisfied with the specimen in his prison garb?"

Ignoring his bitterness she said, "I thought it might be of interest to you to know that Vince Clegg has taken over your job at the Institute."

"And you came all this way to tell me that? Why should I care? Good luck to him—and heaven help him if he makes a great discovery. He'll probably get the same treatment as I did."

"He has been given the job of re-discovering the formula about which you keep so stubbornly quiet. The trial revealed all the facts so there's no point in the Press hiding Vince's objective. From all accounts he has been given many of your original notes and he'll use those as a basis . . ."

"He'll not discover anything. There's one factor missing and only two people know what it is, outside the Patent Office."

"Two?" Madge repeated, frowning.

"Uh-huh. You and myself. I expected long ago that you would tell your father what the missing factor is and let him get to work, but for some reason you kept quiet."

"No wonder in that," Madge said. "I don't know what you mean. You never told me anything about a factor."

"So you've forgotten?" Dick gave a grim smile. "Just as well. That formula, if used with a spaceship, will bring about the ruin of the world. I've proved it now beyond a shadow of a doubt—but I don't intend to say anything. If the world gets smashed to bits why should I care? I'll be

smashed with it, which will be preferable to being stuck here."

"Dick, how can you be so—so unreasonable? Maybe you did get the worst of it at the trial but——"

"Worst of it! A wonderful understatement! I lost everything, including you . . . I don't know why you've come back now."

"Only to tell you about Vince and to ask you to speak out. If you reveal your formula Vince will be forestalled. If *he* finds it the world will credit him with the masterpiece and you will become a totally forgotten man. I don't want that, Dick."

"Why not? You're no longer engaged to me."

"Not as far as the world knows, true—but I had to do that the way things went. I haven't made any public statement about breaking the engagement and I don't intend to. It was just that I preferred to let the association seem at an end whilst you are under this cloud. Can't you see, Dick, I want to *help* you? I am about the only one who will. Everybody else seems to have deserted you, including father."

Dick was silent for a moment, then he said briefly: "I don't want help, thank you—either from you or anybody else. But there is one thing I do not want on my conscience—your death, along with everybody else's, if space travel is tried. If you want to prevent that then stop Vince Clegg trying to re-discover the formula."

"How on earth do you suppose I can do that? I haven't the facility for getting into the Scientific Institute that I used to have when you were there."

Dick shrugged, then without another word he turned his back and departed. A few minutes later Madge was outside the jail, her pretty face troubled, a variety of thoughts passing through her mind. Chiefly she was trying to remember the incident when Dick had given her the full formula—but for the life of her she could not recall it. Stop Vince Clegg in the midst of his activities! Of all the impossible suggestions . . . or was it? Madge went to her car slowly, fishing around for the dim beginnings of a scheme.

Meanwhile Vince Clegg was hard at work in the Institute,

studying the scattered and unrelated notes Dick Meadows had made and using all his scientific knowledge to try and find a clue. His devotion to duty was extraordinary. He worked far beyond the prescribed hours on his task, to the satisfaction of Dr. Waterhouse who was convinced now he had picked the right man as Dick's successor. Another man on the Board was satisfied, too, feeling sure it would not be long before Herr Otto Gunther received the formula he required.

Then, about a week after she had visited Dick in jail, a sudden remembrance struck Madge. It was just after breakfast and she was in the midst of making preparations for a shopping excursion when she paused suddenly, her eyes bright.

"Inaxium!" she exclaimed to herself, snapping her finger. "*That* was the name Dick gave me when discussing his fuel— Yes, of course! A by-product of uranium which is added to the ordinary fuel . . . Added to the ordinary fuel," she mused. "That means the normal formula is still used, but with inaxium added to it it becomes the super-fuel Dick discovered!"

She was not quite sure whether to be relieved or alarmed at her remembrance. Her first impulse was to snatch up the 'phone and give her father the gladsome news . . . then she hesitated. Dick had said that any spaceship finding its way into the void would bring disaster down on everybody's head, and the last thing Madge wanted was to be the one to touch off the gunpowder, whatever the "gunpowder" might be.

Finally she made up her mind to keep her remembered secret to herself until next visitors' day, and then confront Dick with it. This she did and she saw his expression change the moment she mentioned the element inaxium.

"Yes, I remembered it," she said, seeing his look. "You see what that means, Dick? I have only to tell father, or the Government, that inaxium is a missing factor which should be added to normal space fuel—and the thing's done. If I do that I'll say that you told me, of course. I don't want to steal the credit."

"Give that formula to anybody and you won't be in a position to steal anything!" Dick retorted, his eyes hard.

"You're right, of course—inaxium is the secret but I'd hoped you would not remember. At least you don't know the proportion of inaxium needed to ordinary fuel, and I shan't tell you."

"Engineers can find out by trial and error. Once they know what the element is the battle, for them, is about over."

Dick edged forward a little. "Listen to me, Madge, I beg of you! Keep what you know to yourself, and stop Vince, too, if you can. I really mean it when I say space travel must not be attempted! *Really!* It would be a catastrophe."

"You're not making very good sense," Madge told him. "On the one hand you apparently don't care what happens to humanity, and so you don't speak out about this supposed catastrophe you foresee; yet you tell me to stop Vince Clegg working in case he finds the formula and *does* cause disaster. Which line are you supposed to be taking?"

"I owe it to my conscience, I suppose, to try and stop humanity being imperilled if I can—but I am not going to tell the world what I know because they wouldn't believe me. They'd say it was an elaborate scheme I'd hatched up to get myself out of prison while I supposedly investigate." Dick's face became even more serious. "Do two things, Madge—keep quiet about this secret, and try and stop Vince Clegg. Some day, perhaps, I will——"

"I'm not too happy about Vince," Madge interrupted slowly.

"Him taking over, you mean? It was the only logical thing."

"I don't mean that. I've been doing a lot of thinking in the past few weeks, and I'm wondering if we haven't perhaps been taking Vince too much at face value."

Dick frowned. "What on earth do you mean? Vince is—or was—one of my very best friends, and has been for the past seven years and more."

"I know, but the fact does remain that somebody very close to you sold out the spaceship plan to a European group of scientists, or financiers. Who was there in the Institute closer to you than Vince?"

Dick looked as though he did not want to believe what the girl was saying. He gave an incredulous smile.

"It's ridiculous!" he declared at last. "There is a spy in the Institute who bamboozled me into getting the blame—that we do know—but you don't seriously suggest it can be Vince?"

"I don't want to suggest it because I know he's your friend—and I like him well enough myself, too, but I can't help thinking of a rather odd incident one evening—the evening you completed the draft plans and then came to meet me."

Dick waited, thinking back. Madge went on talking.

"You were late meeting me, if you remember, and we missed each other. I hurried back from the Corner House to the Institute to find you, and discovered you had gone—You'd taken a short cut, or something, you said later."

"Well? What's that got to do with Vince?"

"I saw him leaving the Institute for the night just as I was nearing the building. Nothing unusual about that, of course, but since he was obviously leaving *after* you had gone, he might have had time to do something——"

"Just a minute!" Dick's voice had sharpened. "You mean you saw *Vince*? Leaving as you *arrived*? But—but I don't understand it! He left over an hour before me—came in to say good-night, in fact. Queer! I just don't understand it."

"May be nothing in it," Madge shrugged. "Perhaps came back for lost gloves, or something, but he *was* in the building when you had left, and that's the part I'm wondering about. He knew your draft plan was complete, I suppose?"

"Certainly he did."

"And you left it lying about on the drawing bench?"

"Afraid I did. I'm untidy that way—but with that section locked up and only me having the key I thought it was safe, particularly as at that time all members of the Institute were known to be above suspicion."

"Wouldn't the night-watchman have a key?"

Dick nodded. "Definitely. In case of fire."

"Vince did not see me coming, since he was going in the

opposite direction," Madge resumed, thinking. "So to this day he probably believes nobody but the night-watchman saw him depart. At the trial, if you remember, the night-watchman said that nothing *unusual* had happened, as far as he knew. Naturally he would not regard Vince's return to the place as unusual: as a trusted man in the Institute he could come and go as he wished. But I do think the night-watchman could do with closer questioning . . . and Vince too might bear a little inquiry."

"For heaven's sake watch what you're doing," Dick insisted, his face anxious. "If there is anything in this and Vince realises you're onto something your life may not be worth a brass farthing."

"Time's up," the warden announced briefly.

"I know the danger," Madge said quickly, "but I'm going right on. I'm old enough to take care of myself. One thing, before you go—— Who is a good maker of sound recording apparatus of unusual type?"

"Eh?" Dick looked surprised. "Why——er—— Try Harry Markham of back Regent Street. Done a lot for me . . ."

He had no time to say more. Time was up, and that was that—so Madge left the penitentiary once more, her face grim and her mind resolved. That afternoon she saw Harry Markham and took best part of an hour explaining what she wanted—then she returned home in the usual way and, towards ten o'clock, started out again in her car. Her journey ended at the Science Institute. She looked towards the windows which belonged to the department Vince Clegg was now controlling and noticed they were in darkness.

A moment or two later she was looking in on the night-watchman in his little glass-sided booth in the main entrance hall. He gave a start and looked up from his newspaper over his steel-rimmed spectacles as he saw the girl peering in on him.

"Why, it's Miss Pearson! 'Ow are ye, miss?"

"Oh, I'm fine. Mind if I talk to you for a few minutes, George?"

"Surely not, miss. Only too glad—— 'Ere, try this chair. Bit steadier than that 'un."

Madge seated herself on the chair he provided, then he lighted his pipe and waited, a dim look of surprise on his old face.

"It concerns Mr. Meadows," Madge said presently.

"Bad do that, Miss Pearson—'specially for you an' 'im. I don't rightly understand it. Seemed a nice sorta fellow did Mr. Meadows an'——"

"I think Mr. Meadows is innocent, George," Madge broke in. "I'm making an—— Well, an investigation. And maybe you can help. But before you say anything promise me you'll keep absolutely quiet about us meeting here and talking?"

"Aye, surely. I know 'ow to 'old my tongue, miss."

"I'm sure you do," Madge smiled, fishing in her bag and handing over a currency note. "There—that will perhaps make your grip on your tongue all the tighter. Now, you remember that in court you said nothing unusual had happened recently in the Institute?"

George nodded, smoking complacently.

"What about the evening when I came to look for Mr. Meadows and you told me he'd left? You had a jug of tea at the time. Remember?"

"Aye. The day I won the three-thirty. I was feeling——"

"Never mind that, George: stick to the point. Just before I came hadn't Mr. Clegg just left?"

"Clegg?" George frowned and thought, then he seemed to remember. "Oh, aye! Aye, he had. Lost a sketch or summat."

"Sketch?" Madge's grey eyes sharpened.

"That's right. He left with it."

"What exactly did happen, George? Tell me in detail."

Without hesitation George did so, though it was plain he had not the vaguest idea why he should.

"So Mr. Clegg returned just after Mr. Meadows had left?" Madge asked at last. "You allowed him into the main drawing department and left him there whilst you made your tea? As you came back he was just leaving, the wanted sketch in his hand?"

"Aye. And look 'ere, Miss Pearson, don't y'think you

ought to be careful? The way I sees it it looks as if you're tryin' to prove that Mr. Clegg had summat to do with that plan-sellin' business. It couldn't be. There wasn't time. No man could copy intricate sketches in that time."

"A camera could do it in a fiftieth of a second, George," Madge reminded him, and with that she thanked him again and then departed. The matter did not worry him for long, and anyway the money in his pocket was guarantee enough that it was no business of his . . .

* * *

The day following Madge's night visit to the Institute Vince Clegg found himself called to Dr. Waterhouse's office. Once again he was a trifle anxious to commence with and then reassured when he found the chief in a genial mood.

"Have a seat, Mr. Clegg," Waterhouse invited. Then when Clegg had settled down, "Just as a matter of routine, how far have you got in piecing together Meadows' formula?"

"About as far as I *can* go, Doctor." Clegg gave a moody sigh. "I've done everything I can and I have arrived at one definite conclusion: the formula itself is more or less straightforward and follows the lines of rocket fuel of to-day. But there is one factor missing, and for the life of me I can't determine what it is. There are no notes relating to it, so presumably Dick destroyed them and kept the formula mentally. Just one missing factor between us and success."

"And there is no possible way of getting at it?"

"I wouldn't say that." Clegg was quick in his denial, having the half formed suspicion that he might be removed from the department where he might even yet learn all he wanted. "I have still one or two experiments to try. It is rather like trying to find the medium for paint without knowing that turpentine or linseed oil is the answer. I have various reagents to test on ordinary rocket fuel. By degrees I can go through the whole list and when I find one of ready combination I think that will be the answer."

"And that will take a long time!"

"Depending on how long the reagent eludes me."

"Mmmm." Waterhouse compressed his lips and then shrugged. "Oh, very well then, Mr. Clegg, carry on as you are doing—but be as quick as you can. The Government is beginning to get impatient, not realising how complicated a matter this is so of course we want to show results."

"Of course," Clegg smiled, and got to his feet—then he returned to the laboratory more grimly determined than ever to unearth the secret he was looking for.

He spent the remainder of the day exploring various chemical possibilities, using a microscopic quantity of rocket fuel and adding various reagents to it—without result. He had good reason for his endless experiments, too, apart from the fact that the Government was wanting results. Otto Gunther had let it be known by various sources that he was getting impatient. Much more delay and Clegg might find himself cut off from a very lucrative source of money forever. It might even amount to something more than that, depending on whether or not Gunther implemented his statement that he had no time for blunderers.

He did not know whether it was by accident or design, but that evening when leaving the Institute Clegg almost collided with Madge Pearson at the base of the building steps.

"Why, Madge!" Clegg raised his hat, his face all smiles. "Quite a surprise! I haven't seen you since—er——"

"Since Dick was convicted?" Madge suggested, shaking hands. "No use wrapping it up, is there? How are you, Vince?"

"Fine, fine. I took over Dick's job—or maybe you know?"

"Yes—I know. Matter of fact I've been meaning to look you up and congratulate you, only I—— Well, I thought people might talk. You know how it is."

"I do indeed." Clegg glanced about him. "Can I give you a lift anywhere? You don't seem to have your car."

"Off the road, I'm afraid—— Yes, thanks, I'm going into town."

Clegg led the way to the rear of the building where his car was parked and Madge silently kept beside him. After

a while she was in the bucket seat next to him and he drove out with expert smoothness in the cityward traffic.

"I'm glad," he said, "that you don't seem to be letting that unpleasant affair over Dick upset you too much. You look well enough, and as smart as ever."

Clegg glanced sideways and smiled. Madge was in her fur coat with its big, curiously ornamental buttons, and a saucy hat at the side of her blonde curls.

"I've been trying to forget Dick," she replied quietly. "Whether he was to blame or not I don't know, but I *do* know a girl in my position can't afford to continue being associated with his name."

She held out her hand significantly in the light of the dash. Clegg glanced at it and smiled. It was minus an engagement ring.

"I don't think Dick *was* to blame," he said. "But what's the use of arguing with the law?"

"We can argue if we can get proof," Madge answered. "The law is *bound* to listen if only we can dig up some facts from somewhere. I'm rather glad I happened to run into you because it decides something for me. I've been wondering for some time whether or not you and I can't do something together—to clear Dick I mean."

"Such as?" Clegg kept his gaze in front, threading the car through the traffic.

"I don't know. We'd have to talk it over together."

"Nothing simpler," Clegg said, after thinking for a moment or two. "When? To-night?"

"No — to-morrow sometime. I've an appointment to-night. Say at lunch-time—— How about the Crescent Restaurant? It's quite near the Institute."

"Fair enough," Clegg agreed, smiling.

"That's settled, then. If you wouldn't mind dropping me at the next lamp."

Clegg did as he had been asked, shook hands and raised his hat, then with time agreed upon for lunch-time next day he drove on. Madge watched him go and felt that she had driven the first nail into his coffin.

At lunch next day they met as arranged, but so vague were their plans they had to arrange to meet the following

day—and the day after that. Then it came to meeting in the evenings as well. At the end of a fortnight they were as intimate as they could be.

"More I think about it," Clegg said, as they sat in the Corner House on the fourth evening, "the more it seems to me that we're more interested in each other than in helping poor Dick."

Madge smiled. "Perhaps we are. I can't see that it matters. At least we *tried* to think of some kind of plan."

"Not very hard, I'm afraid." Clegg gave a dry smile. Then he asked casually, "I suppose Dick never mentioned any notes he made regarding that formula of his? You know, of course, that I have been given the unenviable task of trying to find out what the formula is, so the Government can get a move on. So far I'm having precious little luck. If that formula could be found it might do a little towards bringing Dick back into public favour again. Naturally I'd see that all the credit went to him."

Madge shook her head. "He never told me anything about it. If he had I'd have done something concerning it by now."

"Pity." Clegg lost himself in thought and then changed the subject. It did not concern Dick or the formula: it concerned only Madge and himself, and by the time the *tete-a-tete* was over she was glad to escape on the pretext of an appointment she must keep.

Playing up to Clegg was commencing to give her a bad name. In her position, gossip columnists never left her alone. More than one scandal-writer wanted to know why a certain financier's daughter was spending so much time with a well-known scientist whilst her ex-fiance was serving a prison sentence. Not that it was anybody's business, but upon such things the day's news is made.

So far, Madge considered that she was doing pretty badly. She had not managed to extract a word of useful information from Clegg: she even began to think she might be wrong about him. She had to make some kind of move soon or their association was liable to deepen into something much more than friendship and that was the very last thing she wanted.

The next day she visited the penitentiary to report her progress—or lack of it—so far.

"You'll never get anywhere," Dick told her. "Much as I appreciate what you are trying to do for me, Madge, I still think you've got Vince figured all wrong."

"Maybe — but I haven't finished yet. Some kind of instinct tells me I'm right, and there are still one or two tricks to play."

"Well, up to you, of course, but I still don't like it."

A few minutes later Madge took her departure, hugging her fur coat about her as she left the gaunt edifice and walked over to her car at the gates. She drove away from the penitentiary in a thoughtful mood, speeding down the lonely lanes through the still winter-seared countryside.

Then, presently, she became aware that she was being overtaken. The savage blaring from the horn of the powerful car to her rear made her draw over to one side. But instead of continuing on and past her the big car drove her further and further from the centre of the lane.

Desperately she jammed on the brakes and flung round the steering wheel, but she was not quick enough to save herself being hurled sideways into the ditch. She jolted violently in her seat and struck her chin a vicious crack on the steering wheel edge. Feeling as though her bottom teeth had been knocked out she glared through the window at the offending motorist.

"If you don't mind, Miss Pearson," he said curtly.

"If I don't mind!" she gasped, turning the window down. "What on earth do you think you're doing? You might have killed me! Even as it is I think I've broken my jaw——"

Madge stopped, aware for the first time that the motorist was holding an automatic pistol in his right hand. He was a tall, hard-faced man with broad shoulders. In the car, at the driving wheel, another man was waiting. Still another was just alighting from the car. He came over slowly, hands in his overcoat pockets.

"Vince!" Madge ejaculated in surprise.

"Hello Madge." He was completely unsmiling. "I think it's time we had a little private conversation. Joe,

drive her car behind us. Can't leave it there. You'll just about get it onto the road again."

"Okay."

Joe pulled open the car door. Madge hesitated, drawing her fur coat more tightly about her. Then, still fingering her aching jaw she climbed out into the lane.

"What's the idea, Vince?" she asked coldly.

"Get in the car and I'll tell you."

Madge had to obey even though Clegg had no automatic in his hand. She climbed into the rear of the car and sunk amidst the cushions, her idle fingers playing with the big ornamental buttons on her fur coat and her eyes watching Clegg intently as he settled beside her.

"Back to town," he ordered the driver. "And take the quiet route because Miss Pearson's car is tailing behind. I'll direct you."

"Okay, Mr. Clegg."

The car got on the move, Madge's own—driven by Joe—following some distance behind. She glanced at it through the rear window then to Clegg's set face as he studied her.

"I've been wondering for some little time, Madge, what your game is," he said finally. "I've had a couple of men tailing you and now I find you're in as thick as ever with Dick it obviously points to some subterfuge on your part. Your association with me, I mean."

Madge was silent, looking through the window.

"I refuse to believe," Clegg added, "that Dick, at some time, did not explain his formula to you. Flushed with success he must have done. A man doesn't keep a great discovery to himself. He tells it to the person nearest and dearest to him."

"Quite a psychologist, aren't you?" Madge asked dryly.

"If he ever did tell you anything you'll tell it to me, Madge: I'll see to that!"

"Which means you are putting your cards on the table? My guess about you was not wrong, after all."

"Wrong?"

"It was you who somehow got Dick's spaceship design and traded it to Europe."

"Yes, it was." Clegg smiled crookedly. "No harm in

admitting it in the cosy privacy of this car. If you ever told anybody they would never believe it without a witness to what I have said, and neither of my boys will tell a thing, of course. You might as well know how matters stand."

Madge was silent for a while, gazing out on the wintry view, then she looked at Clegg again.

"So, to chase after me, you have managed to take time off from your work?"

"I have been given a few days vacation in the hope that a rest may give me a fresh approach to the formula problem when I return—which I am sure it will do with you to help me. I have had a couple of boys constantly watching you, but as they did not seem to achieve any good results I decided to look for myself, and the first thing you did to-day was visit the prison. I consider myself most fortunate."

"And now?"

"We are returning to London. I have a most comfortable spot where you can be hidden. True, it is only a converted basement in an apparently deserted house, but better than nothing."

"I hope you realise what you're doing, Vince. I'm not exactly a nonentity if I disappear."

"I am aware of it, but I'm taking a chance in order to get information from you."

"You'll be wasting your time!"

"We shall see," Clegg answered quietly, and he did not speak again until the car had finally reached Town and drawn up outside an old-fashioned residence in one of the countless side streets.

Clegg moved and opened the door, glancing up and down along the pavement as Madge alighted beside him. She looked up and down also but there was no sign of anybody in the dreary greyness—not even of her own car.

"Journey's end," Clegg told her briefly. "Your car has been driven into a garage where it is most unlikely to be located. Go ahead of me, please."

Madge obeyed, pausing outside the front door of the vacant property. Clegg produced a key, opened the house up, then led her through an empty hall, down a flight of steps, and into a basement. The coldness of it struck like

that of a mausoleum. The chauffeur, who had been coming down in the rear, lighted a couple of oil lamps and then stood waiting.

Clegg, hands in pockets, surveyed Madge as she drew her coat more tightly about her. Her expression was not frightened. It was more contemptuous than anything else.

"It is up to you, Madge," Clegg said at last, lighting a cigarette and studying her through the smoke. "The nice, kindly gentleman who has been associating so much with you recently is going to turn into something most repugnant unless you tell me something about Dick's formula."

"I don't *know* anything about his formula!" Madge insisted.

"And I don't believe you. I'm not going to waste time, Madge. If you don't tell me in twenty seconds I'm going to use the lighted end of this cigarette upon you, and believe me that can hurt quite a deal!"

Madge said nothing. She still hugged her coat more tightly about her and looked completely defiant. Clegg glanced at his wrist watch, waited for a while, then breathed on the end of his cigarette until it glowed.

"Hold her, Nick," he ordered briefly; then he added, "I'm going to make a start on your face, Madge. It certainly will not improve your appearance."

The big chauffeur strode forward and grasped Madge's arms. She struggled fiercely, but without avail, her eyes fixed on Clegg's merciless face as he advanced towards her with the glowing cigarette held out like a pencil. He had come close enough for her to feel the searing heat near her cheek before she spoke.

"No—no, wait a minute! Wait. There's a factor in the formula you haven't got——"

"I'm aware of that," Clegg snapped harshly. "What is the factor? I'm convinced you know."

"It's inaxium—a by-product of uranium."

Clegg's expression changed slowly. He put the cigarette back into his mouth and drew at it pensively.

"Let her go," he ordered, then his eyes strayed to Madge thoughtfully. "Inaxium, eh? A little-known element, but it *could* just be the right ingredient . . ."

"It is the right ingredient!" Madge retorted. "Now let me go! I've told you all I——"

"Let you go?" Clegg smiled and shook his head. "I'm sorry, Madge, but I can't see my way to doing that just yet. Not only would you talk, but I also have to be sure that you haven't given me something worthless in an effort to buy your freedom. No; you must stay here until I have made experiments. You will be well looked after, never fear. Nick here will see to that."

"You'll never get away with this," Madge nearly shouted, her fists clenched. "Once my father starts wondering where I am he'll——"

"I know, I know, but I'm taking the chance. Nick, look after her while I see if she's been speaking the truth."

Nick nodded and without another word Clegg turned and went hurriedly up the basement steps. Madge watched him go, then turned fearful eyes to Nick. He had the kind of face which made him look as though he might do just anything . . .

CHAPTER FIVE

Morgan T. Pearson noticed Madge's absence at dinner that evening and wondered vaguely about it. It was very rarely Madge missed being present at the evening meal no matter how much she was out at other times.

"I keep telling you, dear, she went to the penitentiary," his wife told him patiently, when he had inquired for the third time.

"I know, but it's eight o'clock and she certainly can't be at the prison *now*. Where else was she going?"

"Nowhere—to my knowledge. Don't worry so, Morgan. Madge knows perfectly well how to take care of herself."

"Maybe—but don't overlook the fact that I have enemies. A whole host of 'em, and I go in everlasting fear that one day they may try and strike at me through Madge."

Mrs. Pearson had heard this before, too, so did not take much notice; but even she began to wonder when it reached half past nine and Madge did not return. The clock had just struck when Morgan T. came into the lounge from his study.

"She's not back yet then?" he asked.

"No, dear. But I'm sure she——"

"Well I'm not, and I don't like it." The tycoon strode over to the bell-push and presently his summons was answered by the manservant.

"Yes, sir?"

"Did my daughter mention if she was going anywhere special this evening, Andrew?" Morgan T. snapped.

"Er—no, sir. She left in her car this morning and said she would be returning by the late afternoon if anybody wanted her. I believe she was bound for the——"

"Yes, yes, I know. Thanks, Andrew."

"Very good, sir."

Morgan T. breathed hard when the door had closed. "What the devil she *wants* to keep going to that damned prison for, I don't know! Dick was convicted and he's outlawed from society. Why on earth does she have to keep on seeing him? I've forbidden her to do it, but she ignores me."

"She's over twenty-one, dear, and her own mistress."

Morgan T. said nothing. He thought matters out for a moment or two and then came to a decision.

"I'm going to see Scotland Yard," he said, and turned to the door.

"But surely, Morgan, it isn't as serious as all that? Madge has probably dropped in somewhere to see a friend and——"

"If that were so, my dear, she'd have telephoned home and said so. I'm taking no chances. Remember that she's my daughter and as such a most useful hostage for the unscrupulous."

Definitely Morgan T.'s mind was made up. He had an instinctive feeling, too, that something was very much wrong somewhere and accordingly lost no time in going to Scotland Yard. He was lucky enough to contact one of the chief inspectors who was still at work in his office on the details of a murder case.

He listened with polite patience to Morgan T., chiefly because he *was* Morgan T.

"I want every man you can spare to start looking for my daughter," the tycoon finished. "I'm convinced something queer has happened to her."

The chief inspector reached to the intercom, and switched it on.

"Harry?" he asked. "Contact the hospitals and find out if a Miss Madge Pearson has been brought in. Also find out what you can about her car—ZL 98. Check back with me."

"Right, sir."

The chief inspector switched off and glanced at Morgan T. across the desk.

"Just leave it with us, sir. If there is anything to be discovered we'll discover it."

"Very well—and remember that I want results. I'm not any little schoolboy to be fobbed off with promises."

The chief inspector smiled gravely and shook hands, inwardly convinced that the tycoon's precious daughter had probably done nothing more alarming than turn in at a theatre or somewhere. None the less he was resolved to do as he had been asked: it would not pay to do otherwise with Morgan T.

And at this time Vincent Clegg was concluding his experiments in the Institute. Alone in the big laboratory and secure from interruption he was in the midst of making the last test on inaxium mixed with a small percentage of normal rocket fuel. So far, probably because his quantities were wrong, he had achieved nothing more than small, evil-smelling explosions. But now he achieved a definite reaction. Inside the small testing room, which he was viewing through a densely thick glass, the small experimental

rocket electrically fired shot up to the steel ceiling, crashed into it, then dropped again. Its velocity had been unbelievable.

"It's it!" Clegg breathed, clenching his fist. "It's it!"

He turned back quickly to his notes and checked them, then with a systematic air he went to work to remove all traces of his experiments. All the notes he had made, both now and recently, he destroyed with acid. When he finally left the Institute he had the formula writtē in invisible form on his forearm—which would only become appreciable under ultra-violet radiation—and a small bottle of nitric acid was carefully wrapped up in his pocket. In a matter of perhaps thirty minutes he had reached the house where Madge was imprisoned and was admitted by Nick.

In the cellar Madge was seated on a broken down chair in the glow of the oil lamps. Her face was tired and drawn, but defiant. Her fur coat was hugged about her in the tomb-like coldness.

"Sorry I kept you waiting, Madge," Clegg said dryly. "It may interest you to know I have got all I wanted. The formula is complete. That being so I shall release you—but not immediately," he added, as he saw hope come into the girl's eyes.

"What do you intend to do first?" she asked grimly. "Half kill me so I can never speak?"

"Not at all. You can speak to whom you choose because I am leaving the country, so even if you shout from the rooftops it won't matter in the least. I only require enough time to get clear away before you start . . . Tie her up, Nick," Clegg finished curtly.

Nick nodded and Madge did not attempt to resist since she knew it was useless. In a matter of five minutes her ankles were secured to the chair legs and her wrists tethered behind it. Then her eyes widened in horror as she saw Clegg bring the nitric acid bottle, clearly labelled, from his pocket.

"What—what are you going to do?" she asked hoarsely.

Clegg grinned. "I *could* do many things with this stuff, were I so minded. But I'm not. All I am going to do is

soak your ropes with this acid where your flesh doesn't touch. In a while the ropes will rot and you can get free—and by that time I will be well away. Delayed action escape."

He did exactly as he had said and Madge winced a little as one or two drops of the stinging, cloying liquid accidentally spattered on her hands. Finally Clegg straightened up, threw the acid bottle in a far corner, and then surveyed the girl critically.

"Good enough," he decided. "Give my love to Dick next time you see him, Madge . . . All right, Nick. Time to be moving. We can pick up Joe on the way. I'll leave the lamps for you, Madge," he added over his shoulder. "Save you having to whistle in the dark."

Madge sat frozenly silent until the men had gone up the steps and disappeared from view. Then once she had heard the front door slam echoing through the empty house she began to struggle fiercely to free herself. The only idea in her mind was to stop Clegg leaving the country—which she certainly never would if the acid on the ropes did not eat through a lot more quickly than it was doing at present.

Presently she paused in her struggles, breathing hard. Her eyes strayed to the oil lamps on the rickety table. Making up her mind she deliberately threw herself sideways, carrying the chair with her. By this means, rolling over and over in sudden jerks and painful bumps, she began to move towards the table. Once she reached it she swung herself over until she was crouched on her knees, the chair still bound to her. By a backward shove upwards she set the chair on its four legs and sat gasping for a while and staring at the lamps close at hand.

The table was low built, which brought its top on about a level with her waist. She jerked and inched the chair forward until she was right against the table edge, then having a fair leeway to move the top of her body, until stopped by her hands secured behind her back, she reached her face forward and gripped the small wick-turning wheel in her teeth. Gently she dragged the nearer lamp to the

edge of the table, then with more jolting and jerking turned the chair round so her back was to the table, her body stooped forward to the limit, and her hands raised up behind her back as far as the acid-saturated rope would allow.

She could just reach the glass chimney and, though it burned her fingertips she did succeed in jolting it out of its brass slot. The next part was more difficult—to get her hands high enough up her back to allow of the acid-soaked length of rope crossing the lamp flame. Straining to the uttermost, her head nearly touching her knees she tried to get the rope into position—and overdid it. She caught the edge of the lamp and knocked it from the table.

Instantly it flashed and exploded in a smother of ignited oil. Madge screamed in alarm and threw herself backwards, then she began a frantic rolling to try and escape the flames. They seized instantly on the dry old table and it crackled and spurted. Oil trickles ran along the stone floor to where Madge was trying frantically to roll free. A sudden tongue of flame flashed along and Madge could smell the fur of her coat singeing.

Then, as she began to think she was going to be burned to death, she heard tremendous concussions from a distance, followed by shouting voices and heavy footsteps. It seemed only a matter of seconds before two men came racing down into the cellar. One of them kicked away the burning lamp; the other hurried over to Madge and straightened the chair. With his knife he freed her, his hand flinging away the smoking ropes.

"Near thing that, Miss Pearson," the man said grimly. "If that table had gone on burning the other lamp would have gone up too——"

"Yes, yes, I—— Who are you?" Madge panted.

"The Yard, Miss Pearson. We traced you this far——"

"The Yard! Then get Vincent Clegg quickly. He's not been gone long and he's heading out of the country with a formula belonging to my—— To-er—Richard Meadows."

"Tip them off, Terry," the man said to his companion, and to Madge he added, "He can do it by the two-way car

radio. I don't think Mr. Clegg will get very far. Now let me help you out of this infernal place."

He extinguished the remaining lamp and the flames having ceased to lick the table legs he led Madge, shaking a little, across the cellar and up the steps.

"I don't wish to be taken home yet," she said, when they had come into the street to the police patrol car. "I've something very important to relate to the Yard."

"Very well, Miss Pearson, we'll go there. I'll have news sent ahead to your father, so he can be present too. It was he who asked us to try and find you."

"Just what I thought he'd do," Madge said, and sank down thankfully in the car cushions. . . .

Before very long she was in the office of the chief inspector who had had the matter of her disappearance in hand. Though it was long past his normal hour for going home the news of the girl having been found had kept him at his desk.

"Glad we managed to find you, Miss Pearson," he said, shaking hands with the girl as she came in. "We did it through your car. We traced that, and then the man guarding it. The rest was easy."

"You mean Joe?"

"Uh-huh. He may tell us plenty more yet——"

"And what about Vince Clegg?" Madge demanded, as the chief inspector set a chair for her. "Has he been caught?"

"I have no news yet. All airports and shipping centres have been advised. But I understand you have something important to relate?"

"Yes—indeed I have. It's this."

Madge unfastened three of the ornamental buttons on her fur coat, but the fourth one she *unscrewed*. The chief inspector and his henchmen looked on in polite curiosity, then their eyes widened as from a pocket in her coat the girl took a small box-like affair and laid it on the desk.

"A full confession of Vince Clegg's activities," she said proudly. "Meet the smallest wire-recorder in the world. This button on my coat, specially made like its fellows, is a powerful though infinitely tiny microphone."

"I'll be——" the chief inspector started to say, then he picked up the fake button and examined it carefully. Finally he frowned at the girl. "You're *sure*, Miss Pearson?"

"I ought to be. That recorder was made by Harry Markham of back Regent Street, one of the cleverest radio engineers in the country. The microphone starts to operate and automatically sets the tape moving when it is turned slightly—which looks as though you are fiddling with the coat button. I carried that thing around with me in the hope of getting the truth out of Vince Clegg—and I succeeded! Play that recording back and no court on earth will be able to keep Dick Meadows in prison any longer!"

The chief inspector looked incredulous even yet, but he motioned to his sergeant nearby.

"Get it fixed up, sergeant. It ought to be interesting."

The sergeant nodded and took the minute case out of the office to the research department. He had hardly gone before Morgan T. arrived, his expression both anxious and yet relieved. The fact that he beheld his daughter unharmed though obviously worn out suddenly brought a return of his parental dignity.

"Thank heaven you're safe and well, Madge!" He embraced her as she stood up. "And next time don't you dare to——"

"Wait until you hear what I got, dad, before you start."

"Mmmm—I see. I've been given the details on the way up, and I never heard of such antics in all my life. Did you ever stop to think you were taking your very existence in your hands baiting Clegg like that?"

"Of course I did—but since there was no other way I took my chance. I can't imagine a daughter of yours doing anything different."

Morgan T. was mollified, even though he did not say anything. He glanced across at the desk-phone as it rang. The chief inspector switched on.

"Yes? Wilson speaking." He listened, his face becoming grimmer, then with a brief "Okay, thanks," he switched off.

"Trouble?" Morgan T. asked.

"Soon will be. Vincent Clegg has got clear away. Apparently he didn't need to go to an airport. He had a private plane waiting for him just outside London, and our boys were just too slow to get there first. Afraid that wraps it up for the moment until we can get things moving in Europe."

Madge made a gesture of annoyance. "If only things had worked out as I'd meant them to! I gave him the formula he wanted because I thought he would then let me go free. I intended to come straight here with his recorded confession and get him arrested. But he was too wary. He tied me up until he had *proved* the formula I had given."

"So that's it!" Morgan T. exclaimed. "I didn't know *you* had given him the formula. How did you come to know about it anyway?"

"I—er—" Madge hesitated. "I remembered it. Dick gave it me long ago, and I'd forgotten."

Her father did not say anything, but she could tell from his expression that once they were free of the Yard he would let nothing stand in his way to have from her the information he wanted.

* * *

The recording Madge had made with the micro-tape machine was such that the law accepted it, since the hurried departure of Clegg himself bore out the facts. Dick Meadows was immediately released from jail, and there was talk of compensation for the miscarriage of justice which had taken place. In this he did not seem remotely interested. The first interview he sought was with a high Government representative, but Morgan T., not to be outdone—and having failed to get a single clue from Madge concerning the formula he wanted—arranged it so that the Government representative made his contact through the

Morgan T. Pearson organisation. Consequently Dick found himself with both the Government man and Morgan T. when he arrived at the tycoon's office the day after release.

"The time's come for a showdown, boy," Morgan T. said, as Dick sat down. "Last night at home I didn't bother you with business since you'd only just come from the penitentiary—but to-day it's a case of back to work. Mr. Denby here, of the Government, knows perfectly well—as does everybody else—that I am as anxious to get your fuel formula as the Government is. Neither of us have it, so I'm prepared to bid against Mr. Denby for the rights. What about it?"

Dick's face was grim. "Both of you are wasting your time, gentlemen. It is the biggest tragedy out that Clegg managed to get the missing factor in the formula after all. I'm sure Madge didn't realise what terrible consequences might accrue, though I can't blame her for speaking rather than endure whatever tortures Clegg had in mind for her."

"Don't you think it's time to put an end to all this evasion, Mr. Meadows?" the Government man asked rather coldly. "We are willing to take a refusal, but not without an explanation. *Why* can't we have the formula?"

"Because it would destroy the world! And I don't intend to explain in full either, because neither of you are scientific enough to understand. But I will later—my only aim at the moment is to get to Europe and stop that formula being used before it's too late."

"Now look here——" Morgan T. began, but Dick cut him short.

"The only thing I can advise in your case, sir, is to do what you can to dissolve that Space Corporation, because there will never be space travel in the history of Mankind. Never! If there is — which will apparently come from Europe—there will only be one ship followed by a terrific cataclysm which may well wipe out civilisation! Mr. Denby——" Dick looked at the Government man earnestly. "I have no time for details, but the need for action is immediate, in the interests of everybody on this planet, even the

criminals we are hunting. I want the support of the Government in trying to retrieve this formula."

"Support? In what way?"

"I want the loan of a fast plane, preferably a small bomber in case bombing is the only answer in the finish, and I also want financial backing for the building of a special detector and a surgical operation. Since I am working on behalf of humanity in general I don't see why the Government should not stand the racket."

"A surgical operation?" Denby repeated in surprise. "Why that?"

"I intend to have my features altered; it may help. Sir Arthur Cornall can do it in two days, which is the most time I dare allow myself."

Denby reflected. He certainly did not understand the issues involved, but he *did* understand that if the formula could be recovered from Europe there was still a chance the Government could use it, whether Dick Meadows liked it or not.

"Very well," Denby said finally. "I'll arrange whatever you want, Mr. Meadows."

"And I'll back you too if need be," Morgan T. added. "Even though I think you're behaving with incredible obstinacy. I'm pretty sure Madge thinks the same thing."

Dick shook his head. "No she doesn't, sir, otherwise she would have handed on the missing factor to you. She believes in me and knows I've good reason for undoing all the work I have put in on space travel."

"But dammit, man, can't you raise a corner of the veil at least and tell us *why* space travel is a bad proposition?"

"Because the atmosphere will catch fire," Dick answered. "It would take me a long time to explain, but before I go and see Sir Arthur Cornall I *am* going to hand my notes to the leading scientists for them to check—confidentially, of course. If they all agree I'm right that makes me a saviour instead of an obstinate idiot, always granting I can get to Europe in time to save disaster. I don't know how far advanced they are. They may even have a spaceship built, in which case—" Dick got up from his chair actively—"I've

got to move. Explain things to Madge for me, sir, will you. If I come back I'll sort out a lot of tangles."

With that Dick went on his way, and Morgan T. scratched his head and looked at Denby. The Government man shrugged and picked up his brief-case.

"Nothing more I can do here, Mr. Pearson, so I'll go and fix things up for Meadows. I shouldn't worry too much. You know what scientists are! He'll come through with his formula finally."

"So I should hope!"

In another moment or two Denby departed. Morgan T. rubbed his jowls impatiently and then took up the telephone. Before long he was speaking to Madge and giving her the details.

"There are times," the financier said at length, "when I begin to wonder if Dick is not just a little crazy! That talk of his about the atmosphere catching fire was about the limit!"

"Dick knows what he's talking about, dad," Madge answered. "And if he thinks he is going to fly off to Europe without having my good wishes, then he is crazy!"

"Now, Madge, you listen to me——"

The line became dead, so Morgan T. gave it up. At the other end Madge hurried from the hall to her bedroom, dressed hastily in her outdoor clothes, and then departed with a brief indication to her mother that she would be back as soon as possible.

She drove straight to the consulting rooms of Sir Arthur Cornall in the city, to discover that, so far, Dick had not arrived. Undeterred she settled in the waiting-room and remained there until, an hour later, he entered. He paused in some surprise as he saw the girl rising to meet him. A quick glance about him assured him that there was nobody else present.

"Unexpected, but nonetheless welcome," he said, kissing her. "What's the idea, anyway?"

Father told me what you intend doing, Dick — about

getting your appearance altered and flying to Europe. I want to come with you."

"Impossible, dearest! I wouldn't think of it."

Madge did not say anything to this, but after a moment she asked a question: "How long do you expect this facial operation to take?"

"Couple of days maybe. I've made all the arrangements with Sir Arthur over the phone. I must tell the receptionist that I'm here and——"

"Just a minute, Dick, before you do that. Where are you going to be during the two days you're recovering?"

"In a private room in Sir Arthur's sanatorium—the Crest. A couple of miles from here in Ellington Street."

"I see. And there'll be nobody to handle your affairs in that time."

Dick smiled wonderingly. "My affairs? I haven't any——"

"What about the plane you've asked for? The detector, or whatever it is, and the scientists you are going to contact about this theory of yours?"

"Oh, those! I've already handed my scientific notes to the technical staff at Greenwich for impartial opinion. As for the detector, I've phoned various firms for tenders, and——"

"Look, Dick, let me be your secretary in these two days. I can feel I'm helping that way. You're back in your former room at the hotel, aren't you?"

"Well, yes—just to have an address for the moment." Dick shrugged. "All right, no reason why not. I'll give you a note to the reception clerk at the hotel, and whilst I'm away you can handle my affairs, if any. He'll let you have whatever letters there are. If there are callers, which I doubt, just stall them until I can talk to them personally."

Madge smiled. "Now I'm happier. I——"

She paused as the receptionist came into the waiting-room.

"Oh, good morning, Mr. Meadows," she greeted. "I'm sorry I was rather long, only——"

"I'll come right away," Dick told her. "If Sir Arthur is ready for me?"

"Definitely. You made your appointment."

Dick nodded, embraced Madge again and then turned back to the receptionist.

"I wonder if I might have a sheet of plain paper? I just wish to write a letter for Miss Pearson. . . ."

CHAPTER SIX

Dick's chief worry in the two days whilst the plastic operation held him up was thinking about Europe. He expected almost any minute to hear of the launching of a space machine—if indeed there could even be time to send such news in view of the disaster he fully expected would attend a spaceship flight. But nothing happened, and in Europe matters could not be deadier. He was not aware of it, but Herr Gunther, aided and abetted by Vince Clegg of course, was having extreme difficulty in obtaining the necessary supplies of inaxium. It was a by-product chiefly confined to Canada and parts of the British Isles, and notably deficient in Europe. This, added to the need for extreme caution, was all tending to throw a spanner in the Prussian scientist's works.

At the end of the two days Dick left the sanatorium, his features healed by the almost miraculously fast processes of the famous surgeon. As Dick Meadows he was no longer recognisable. Indeed, Madge—meeting him by appointment

at their favourite restaurant—had to look at him long and earnestly before she detected faint traces of the original.

"Nicest job I've seen for a long time," she said, when he was seated opposite her. "Hurt much?"

"Not particularly. It smarts a good deal, and I should have taken longer to get over it, but there just isn't time. How about news? Anything stirring?"

"From Europe—nothing. But I have got a tender from Midland Commercial for that detector you asked for. I don't know anything about the detector, but I do know that the price quoted is the lowest. There is also this from Greenwich Observatory."

Dick took the letter handed him and tore open the envelope. He read the letter slowly, his expression changing. Finally he tightened his lips.

"This settles it," he said, his voice grim. "Those various experts who checked my findings pronounce me right! I've got to stop that European experiment at all costs. . . . What about the plane? Did the Government do as I asked?"

Madge nodded. "Here's the official notification of where the plane is, and a Government pass. In the capacity of your temporary secretary I felt entitled to open it. I couldn't deal with the Greenwich letter since it was marked 'Personal'."

Dick studied the Government note and nodded in satisfaction. "That squares that off then," he said. "A small bomber with all modern scientific facilities. All I have to do now is get the detector made—then I'm off, as quickly as possible."

"What does the detector do, exactly?" Madge asked.

"Inaxium has highly magnetic qualities when you come to analyse it, magnetism enough anyway to affect a specially made needle in a vacuum-case. I hope that Midland Commercial can make me a detector sensitive enough to lead us right to the stuff—and automatically to Vince, of course, and whoever he is conniving with. This afternoon I must get off to Birmingham straight away. I'm scared every minute of the worst happening."

The meal had been brought before Madge spoke again, and then she asked a question: "And you won't let me come with you to Europe?"

"Too dangerous—you should know that."

"But if I'm perfectly willing to chance that, what does it matter?"

Dick shook his head. "Sorry, Madge. Much though I'd love to have you beside me I don't feel entitled to take such a risk. You've been a grand help in these last few days, and I appreciate it—but from here on I'm on my own. The moment I've achieved my object it will be very much different."

And that appeared to be his last word on the subject. When he parted from Madge he only took out time to prepare himself for his journey, then he set off for Birmingham. For the next two days he stayed there, constantly on hand to hurry up the engineers building the detector. At the end of that time, working to the designs he had drawn, the instrument was finished. At its first test, the electric actuating current flowing through the needle, it worked perfectly on its diamond mounting. The needle swayed about universally in its vacuum globe and finally came to rest, the tip pointing at the scale reading.

"Perfect!" Dick enthused, rubbing his hands and peering at it. "A good job, boys—and thanks."

An hour later he was speeding back by plane to London. He went to his hotel to finish off personal arrangements and then rang up Madge for a good-bye. To his surprise she was not at home, and the manservant did not appear to know what had happened to her. Feeling somewhat disgruntled Dick headed for the airport in a taxi, his precious detector in a shock-proof box beside him.

He reached his plane to find it fully provisioned and fuelled, idling mechanics ready to arrange the initial take-off. Over this Dick wasted no time and as the evening light was dimming he swept the machine over the airport, turned in a circle, and then headed for the silver streak of the English Channel. When he had the plane well under

way he slipped in the automatic pilot, unpacked his compass and clamped it down to the edge of the control board. Thoughtfully he watched the needle swing and set his course accordingly.

"Just can't miss, can it?" asked Madge's voice.

"No. It's absolutely——" Dick froze in mid-sentence and looked upwards in amazement. Madge was quite near to him, leaning against the cabin wall, dressed in a business-like shirt blouse and a pair of slacks. She was smiling dryly.

"Turn back if you dare!" she murmured.

Dick got to his feet and gripped her shoulders. "Just how did you get here?" he demanded.

"Surely there's no mystery about that when I knew where the plane was? That was one of the main reasons for my becoming your secretary—to keep tabs on the plane. I was determined you shouldn't go to Europe without me. With your signed letter as my free pass I was able to enter this plane, and nobody was watching for me departing. I came into it last night and have stayed in ever since. There are plenty of provisions. When you came aboard to-night I hid myself in the storage locker back there."

Dick sighed and gave a rueful smile. "Oh, well, the damage is done now. I suppose I should have had more sense than try and keep the daughter of Morgan T. out of trouble. Now you *are* here, have a seat."

He motioned to the vacant seat beside his own at the control-board and the girl settled herself. Then he plumped beside her and they both studied the compass together. On the instrument board the controlling light was keeping exact step with the compass needle.

"According to my reckoning," Dick said, "we shall reach Europe when it is getting dark, which is just as we want it. I'm flying at fifty thousand feet, which gives us good cloud cover. When this detector needle points downwards we are exactly over our target."

"Then what?"

"It all depends what sort of a place lies below. If things

don't look too tough—I intend to land and try and see what is going on, calling myself a tourist or something. In my present disguise I shan't be recognised. That's why it is difficult for you. Your face is well known from social columns, so I shall have to leave you to guard the plane."

"Simple enough. And much safer for the plane. And if it comes to using a gun I can do that well enough too . . . But, Dick, wouldn't it be simpler to bomb whatever place we discover and then move fast?"

"Simpler, yes—but there are other considerations. I can't go and bomb a spot without causing the most frightful international complications, politics being what they are."

"Maybe—but if the safety of the world relies on it it's surely the best course, and far less personal risk to yourself?"

Dick considered this for a moment and then shrugged.

"See what we find anyhow," he decided at length, and removing the automatic pilot he began to control the machine as it flew onwards into the gathering night.

By the time it had really become dark they had crossed Belgium and were well on their way into Germany. The compass still pointed ahead, but when at last Germany had been left behind and the plane was well into the heart of Poland the needle began to dip slightly. From that moment onwards Dick divided his attention between it and the controls, Madge peering out onto the dark void below. Here and there in the distance dim lights picked out a town or city, but immediately below there was nothing but total darkness—apparently open country covered with considerable verdure.

"This seems to be it," Dick said finally, when the needle was pointing directly downwards. "Somewhere immediately below us is the spot we want."

He switched off the lights so as to gain a better view and opened a floor trap. Then with Madge beside him he went on his knees and peered below.

"Forest or something," Madge said. "Pretty wild looking sort of country. What do you intend doing—going below and sticking your chin out?"

"No." Dick shook his head. "Your idea is a better one. We'll lay a few eggs and when we're satisfied that we— Say, take a look!" he broke off sharply. "Down there! Catching the starlight!"

Madge peered intently and gradually made out the outlines of something resembling a silver cigar standing on end. It seemed to lie in a deep, tree-ringed hollow of the earth, the starlight and rising moonlight giving the shadowy details.

"A space machine!" Madge ejaculated. "*That's* the spot, Dick! And since the detector works too it can only mean that they've managed to load the thing with inaxium."

"Uh-huh," Dick acknowledged. "And now we can see our target we shan't have any excuse for missing."

He got up again and moved to the control-board. There was enough spot-light on the panel itself to see the switches, so he left the main lights still extinguished. Then he moved the controls preparatory to circling his objective—but at that exact moment there was a sudden spluttering gasp from the motors, and then they expired. Dick looked about him anxiously, then up at the fuel-gauge. It registered three-quarter full.

"Something queer!" he snapped. "Power's cut right off on the motors—I just can't get into position now. Only thing I *can* do is land, and take a chance."

Even this was difficult, however. In the darkness, and over unfamiliar country, he had not the remotest idea where he was guiding the lurching aircraft. He kept an intent gaze on the main window, then threw himself back as tree tops at last came sweeping out of the murk.

Shattering and crumbling as it fell, the plane battered its way through the treetops and was halted several feet from the ground, nose down. Dazed, Dick lay on a floor that had been a wall, Madge not far from him and struggling to get to her feet. Apart from bruises neither of them was hurt. The darkness inside the machine was complete now, even the glow on the panels having faded.

"That was deliberate," came Dick's grim voice, as he

stood up again and took his revolver into his hand. "I should have remembered that we're dealing with scientists. They evidently cut out our electrical circuit on the motors. It didn't work on the panel lights because they are battery controlled. . . ."

"In fact somebody wants to play games?" Madge asked. "All right, we're ready for them."

She found her way to the rack on the floor, which had been the wall, and took from it a loaded revolver. Then she moved back to Dick.

"Well, what do we do? Wait here until somebody tries to smoke us out, or go searching on our own?"

"We'll see first if the compass is working," Dick answered. "If it is I'll unclamp it and we'll follow the needle. That ought to bring us back to the spaceship we saw."

He struck a match, but the flickering flame soon revealed that the compass was smashed to pieces after the crash. The needle was broken from its diamond pivot and the vacuum globe was cracked.

"That settles that," Dick sighed. "Best thing we can do is explore anyway and see if we can discover anything. The probability is it's already known that we crashed since the plane was crippled by whoever's around here. Anyway, let's see what we can do. See if I can find the door first."

He managed to do so finally—in the "roof"—and pulled it open. Clambering outside he helped Madge after him, and soon they were in the midst of the dense foliage of the trees. The plane itself was a total wreck, its wings smashed off and the propeller broken. The one merciful thing was that the fuel had not caught fire.

Feeling his way as carefully and as silently as he could, Dick found the branches immediately below him and began to descend, helping Madge down after him. After ten minutes of battling with leaves and branches they dropped to the ground, apparently in the midst of a small wood. They were in the act of looking around them when the sound of sticks being trampled underfoot reached them. Hardly had

they become aware of the fact before several brilliant torch beams enveloped them.

"Get your hands up and drop your guns," a voice ordered in English.

"That's Vince," Madge murmured, raising her arms as she dropped her weapon. "I'd know his voice anywhere."

Dick did not respond. He was trying to peer into the blaze beyond the torches as they came nearer, but he did not succeed. Then finally the party of men had come close enough to be counted even if their features could not be identified. There were six of them.

"Hello, Madge," came Vince's voice dryly. "Who's the new boy friend?"

Madge did not answer, and Dick turned his head away as the torch beams concentrated upon him exclusively. Finally he heard a low whistle.

"I'll be damned if it isn't Dick, beautifully disguised! Well, well! Just how much did you hope to gain from this, Dick? You should remember that you are dealing with scientists who are up to every trick on the board. Sorry about the plane, but our detectors showed it was buzzing around, and we don't like strangers in this territory. Didn't know it was you, of course, otherwise I'd have had the red carpet out."

"Stop clowning around," Dick said acidly. "Now you've brought us down what do you intend doing about it?"

"Of myself, nothing. It's up to Herr Gunther—and it's time you both met him. Come along. . . . Carl, pick up those guns," Vince added. "They may be useful."

Nudged by the revolvers Dick and Madge had to obey, and, in the midst of the grim-faced party, they were forced through the wood and presently over a rise in the landscape—and so finally into a depression in which stood the lofty, gleaming outline of the space projectile against the stars. Dick studied it as he was forced onwards and had no difficulty in recognising the design as being identical to his own; then he and Madge found themselves going down into the ground through an open trap.

The descent finished at the base of twenty metal steps supported on scaffoldings, then they were pushed along a narrow, man-made passage which ended at a partly open door. In another moment they were inside a big laboratory, brightly lighted by electric light, the source of the energy apparently coming from big generators in a far corner.

Dick looked at the solitary man watching the advance of the party. He was thick-set, square-headed, and wearing dense lensed glasses. Over a suit of tweeds he had donned a faded white overall, open down the front.

"Herr Gunther," Vince said. "This is Dick Meadows, our inventive friend."

"You mean it was Herr Meadows in the plane?" Gunther asked in surprise.

"No doubt of it—and Miss Pearson as well."

Gunther came closer, nodding to Madge—who returned him a stony stare, then he looked at Dick closely.

"You are most unlike your photographs, Herr Meadows," he commented.

"I had my face lifted," Dick answered dryly. "I thought it might be useful, but evidently I guessed wrong. With this set-up down here I doubt if any plane on earth could get by undetected."

"You are right, Herr Meadows—very right. This is a particularly isolated spot of Poland, which is one reason why I have my laboratory here. Our instruments soon picked up your plane. The only puzzle is how you found us so accurately."

Dick did not satisfy the German's curiosity: instead he turned to Vince Clegg,

"One word of warning, Vince," he said. "If you fire that damned spaceship into the void you'll probably kill everybody on this planet."

"Same old story, eh?" Vince asked, grinning. "It's wearing a bit thin, Dick. Matter of fact you both happened in at the initiation ceremony. After considerable difficulty we have managed to get some supplies of inaxium and that projectile you've seen outside is all ready for departure into

space, radio controlled and nobody aboard. I think you'll be interested to see what happens. On whether or not the flight is a success depends a packet of money for me. Herr Gunther, being a business man, is in no mood to part with anything until he sees if the fuel works."

"I suppose," Madge asked sourly, "you're feeling pretty well pleased with yourself, Vince? Sold everybody out, haven't you?"

"If I choose to be a good business man, Madge, I cannot see it is any concern of yours. I think, in my position, that your father would have done exactly the same thing. He certainly did not accrue his millions by fair dealing."

"Why, you——"

"Stop this arguing!" Gunther ordered, banging his fist on the desk. "There are more important issues than personal squabbles. . . . I have," he finished thoughtfully, "a most excellent idea."

Dick and Madge waited and Vince Clegg glanced at the heavy built men around him, all of them strong-arm men to Gunther.

"Herr Meadows and Fraulein Pearson, you are of course hostile to the scientific progress we are trying to make. You are determined to try and stop it at all costs—partly because of a crazy theory which exists solely in the brain of you, Herr Meadows, and partly because the conquest of space is really a stolen one since you thought of it first. However, I have no scruples as to where the idea came from—I am merely interested in establishing the first space line. For that very reason I cannot tolerate opposition. You realise that?"

"Are you politely telling us you intend to put a bullet through us?" Dick snapped.

"Nothing so crude, Herr Meadows," Gunther grinned. "I am going to give you and Fraulein Pearson the honour of being the first two human beings to cross the boundary into outer space. A former test pilot *would* have had that honour, only he crashed. You two will succeed, but will not return to tell the tale because the radio controls will keep the machine flying on and on in a straight line through

space until it is drawn to one side by some planetary body or other and smashed to powder upon it. It is even possible the sun will claim you with his vast superior gravity . . . All I wish to see, as I *shall* see with this telescopic equipment"—Gunther nodded to it nearby—"is that the projectile really *does* travel space. Once that fact is established the Gunther Space Line will be born, and all the millions which will accrue from it."

"For God's sake, man, listen to me!" Dick insisted. "It makes no difference to Miss Pearson or me if we *are* fired into space. We'll die there as surely as you will die here. You *mustn't* send up a projectile. It's—it's *fatal*!"

"Why?" Gunther asked, still a scientist at heart in spite of his tremendous ambitions.

"Because the atmosphere will catch fire!"

Gunther smiled incredulously, but Dick went on talking earnestly.

"Call it crazy if you like, but back in England scientists have checked my figures and agree with me. Don't you understand that around this planet—and around all planets with an oxygen-nitrogen atmosphere—there is invisible fire? Force a body through that which becomes white hot with friction and——"

"Oh, why listen to him, Herr Gunther?" Vince Clegg demanded. "He's talking absolute rubbish. If the atmosphere is liable to catch fire because of the passage of a body through it at tremendous speed, then it would have caught fire long ago when shooting stars first appeared. The Siberian meteorite, for instance, the biggest ever, would have done the job thoroughly. But nothing of the sort happened."

"There's no comparison between shooting stars—chunks of meteoric iron—and a projectile powered by the atomic basis of inaxium," Dick insisted. "It means——"

"I am sorry, Herr Meadows, but I am wasting time," Gunther said briefly. "Our projectile is timed to leave Earth at exactly ten-fifty to-night and it is already nearly ten o'clock. The sooner you are in the projectile, the better. Come!"

Further argument was useless, so Dick and Madge had to follow the square-headed scientist from the laboratory and outside again. With revolvers pointing at them they crossed the open ground to the gigantic cradle in which the upended rocket was poised. To the airlock there led a steel ladder.

"If you please," Gunther said, motioning to it.

He waited until the two had ascended it in the light of the many torches, then he followed after them with Vince Clegg and two of his silent henchmen. Within the control room, its ceiling lights glowing, Dick and Madge looked about them. There seemed little to choose between it and the control room of a submarine—except for the big outlook window in front of the main switchboard.

"Sit down!" Gunther ordered, motioning to the screwed-down chairs against the further wall—then when Dick and Madge had obeyed a further nod from Gunther brought one of the men forward with rope. In a matter of a few minutes he had secured Dick and Madge tightly by wrists and ankles to the chairs' steel framework.

"Perhaps not a very auspicious beginning to space travel," Gunther remarked dryly, "but effective none the less. At least you will have no work to do: the radio equipment will do it for you."

With that he turned to the control panel and switched on the automatic control connected to the radio gadgets. A red light came up instantly. Satisfied, he moved back to the airlock, then paused and glanced over his shoulder.

"This airlock has a double control," he said. "It can be fastened equally from inside or outside. On this occasion it will be *outside*."

"Why waste time telling *me* that?" Dick grated at him. "I built the damned thing—or at least designed it. I know every bolt and gadget."

"Of course," Gunther agreed, shrugging. "For the moment I had forgotten."

He jerked his square head and Vince Clegg and the strong-arm men left the control room, closing and clamping the door behind them. There were the sounds of them descending the metal ladder outside and then silence.

"Five past ten," Dick said at length, looking at the chronometer. "That gives us forty-five minutes to starting time."

"For all we can do it might as well be forty-five years," Madge answered hopelessly, dragging without avail at the tough cord holding her. "I don't know about you, but I can't budge. Even supposing we could get free what good would it do? The door's locked on the outside. We'll go up anyway!"

"But if we can only control this damned thing before it goes straight through to outer space we can save ourselves and everybody else. We've got to get free in forty-five minutes, somehow!"

"But—but *can* you control a switchboard designed for radio guidance?"

"You seem to have forgotten, Madge, that *I* designed this vessel. I know every rivet, every bolt, every control. I can do just as I like with it if I can free myself."

Thereafter he spent no further time talking. Instead he settled himself to a tough, concentrated effort to tear free of the tightly knotted cords holding his wrists and ankles. After a long battle he relaxed for a while, breathing hard, and no nearer his objective. He glanced at the clock. It had reached 10.15.

"If only these chairs were movable we could sit back to back and unpick each other's cords," Madge said. "That is, if *I* could. My hands are so numb I don't think I could do a thing."

"Mine aren't much better . . ." Dick looked desperately around him and finally over his shoulder. His gaze remained fixed, studying an up-bent angle bracket low down on the curved metal wall, upon which was hanging a coil of rope for emergency use only. The bracket was flat edged and about a foot behind him at waist level.

"No use looking at that," Madge told him, seeing his scrutiny. "These chairs are screwed down and you certainly can't get your hands a foot behind you when they are fastened to the chair's metalwork."

"I've enough leverage to get a sawing movement if I

could only get my ropes over that bracket," Dick panted. "Let's see now, this chair is tubular steel. That being so it ought to bend under pressure."

He dug his heels hard into the metal floor against the ridges put there for better surface grip. With his ankles tied he could only just manage to wedge against the floor, but it was sufficient for his purpose. He waited a moment and then forced his body backwards with all his strength. Ever so slightly the rear tubular legs gave a little under the strain.

Encouraged, he shoved again, then with unexpected suddenness one of the rear legs bent sharply, tilting him at an angle. But it was all he needed. By means of a little manoeuvring he managed to hook the cord round his wrists over the bracket and began to work it up and down steadily. Madge watched tensely, then looked back at the clock. It said 10.25.

"This is going to take some time," Dick said at length, pausing for a moment with perspiration trickling down his face. "The edges of this bracket are not as sharp as I'd like——"

Then again he got to work, struggling hard for as long a period each time as he could maintain. The clock finger crept on steadily meanwhile . . . 10.30—10.35—10.40——

With a whoop Dick whisked his hands apart, his wrists bleeding from the abrasion he had given his flesh. Quickly he bent down and unfastened his ankles, then stood up and set about releasing Madge. It was 10.47 when at last they were free to move.

"Three minutes to decide what to do," Dick said quickly, studying the switchboard. "Mmmm — nice job they've made of this radio control. It seems to be ruling all the important switches. All right—only one thing to do. Cut out the radio equipment entirely and go up just the same but under manual control, letting them think the radio is doing it."

He seized the main cable leading to the radio equipment and tugged savagely, finally ripping it free from its terminals. Madge watched, not in the least understanding

the complication before her, as Dick closed some switches and opened others. Then finally he grasped a big porcelain-handled switch and closed his hand around it. Fixedly he watched the clock's second hand.

10.48 — 10.49 . . . He began to count the decreasing seconds steadily — then at exactly 10.50 he slammed the main switch home. Instantly the power plant hummed and the electrical current was transferred to the firing chambers of the rocket-tubes. With a staggering burst of speed which nearly pinned him to the floor the projectile started hurtling skywards. Madge, indeed, *was* on the floor, and unable to rise under the appalling strain.

Dick glanced at her, but at that moment he had not the time to give her any assistance. The ship demanded all the control he could give it, especially if he were to preserve the illusion that it was travelling by radio guidance. So he allowed it to climb at the same dizzying pace, higher and ever higher, the landscape below becoming a dark, unformed blot in which nothing was visible.

The altimeter needle swung round steadily on its white dial. Thousands of feet, tens of thousands—then it reached maximum and the mile indicator automatically took over.

20 miles up—30—50—— Still at the same terrific velocity under which Dick felt himself wilting. He clung on desperately because he just *had* to.

60 miles—70—80—90—100. Then he cut out the rocket tubes. Immediately the strain relaxed and for a while the projectile went on climbing. Tensely Dick stared through the window on the blazing stars, as yet still dimmed by the band of the atmosphere. The machine was by no means out in space, and must not *ever* be.

His calculations were correct. Within a few miles of the underside of the Appleton Layer the ship reached its maximum height and then began to drop slowly back, gathering speed, until it was screaming down towards the Earth once more with a staggering velocity.

"Dick—Dick—do something!" Madge gasped, anguished at the prolonged sensation of being in a rapidly falling lift. "I can't stand it——"

Dick gave at the knees and snapped switches. The dropping was checked and instead there was a swift arcing movement and then a forward velocity. At a height of fifty miles the projectile, using its normal jet motors, was streaking parallel to the Earth's surface. Madge got slowly to her feet, her face damp and her hair tousled. She clawed her way to the switchboard and peered outside.

"Where are we heading now?" she asked breathlessly.

"Back home. The only trouble is that Vince and his pals will probably be aware of what we've done since they have the projectile telescopically in view. They won't be able to catch up with us, of course, at the tremendous velocity we've got—but they *will* know we've won this round and will set to work to build a new projectile immediately."

"Then we must stop them, with everything we've got!"

Dick's brows knitted as he gazed into the night. "That's the natural answer, yes—but the job will be to convince the Government that such action is necessary. They'll think in terms of international complications rather than realise the danger to the world in general . . . Have to do what I can with the backing of other scientists, that's all."

He turned to the compass and indicators and set the course of the projectile for England. In a little under half an hour the huge machine was dropping tail-first out of the sky and landed perfectly at the main London air-port. Outside a swarm of mechanics, obviously astounded at the visitor, came hurrying forward in the glare of the arc-lamps. There was an interval whilst they unscrewed the outer air-lock bolts, then the massive operculum swung wide.

"Thanks, boys," Dick acknowledged, then struck with a sudden thought he turned to the power-plant switches and snapped them on. Immediately, outside, the exhaust tubes began to vomit forth a deluge of superheated sparks accompanied by a blast of hot air. The mechanics backed away, and remained away for ten minutes until the pyrotechnics were over.

"What was that for?" Madge asked in surprise.

"I've burned up the surplus fuel. I don't intend the

Government making use of it for their precious test, as they would with a ship here already made . . . Best thing we can do now is try and get the authorities to realise how serious the present situation is . . ."

CHAPTER SEVEN

To obtain an interview with a high ranking Government official that night was impossible, Dick found, but he did succeed in making an appointment for the following day, which gave him time to contact those scientists whom he felt might be able to support his views. Accordingly, at ten o'clock next morning he, and the scientists concerned, were permitted an interview with the Deputy Prime Minister. The fact that the Prime Minister himself was abroad Dick regarded as a major tragedy since the P.M. was known to be a man of scientific prescience. No such label could be attached to his deputy—— He was a tall, languid, supercilious being who apparently regarded the deputation as a complete waste of time.

Whilst the scientists listened, until called upon to speak, Dick outlined his experiences of the previous evening and the deputy listened in abstracted silence. When it was over he looked at Dick questioningly.

"Well, Mr. Meadows, and what do you expect us to do?"

"The only thing you *can* do if you are to save this planet from disaster. Bomb these experimenters out of existence. You will never get at them by ordinary methods because they are protected by scientific weapons—but I think a high level bombing attack would settle them."

The deputy smiled thinly. "My dear Mr. Meadows, do you realise what you are asking? We cannot suddenly go

and bomb men in another country, no matter how dangerous their experiments may be. Why, it would start a world war!"

"Even that would be preferable to the destruction of all civilisation."

"The proper course," the deputy mused, "is to inform the requisite Government of what certain of their nationals are doing and have *them* act. Then——"

"That won't work for two reasons," Dick insisted. "For one thing the European Government concerned will not realise how great the danger is, and for another it would take up too much time. In a month, or maybe less, a new projectile may have been built and this time it will certainly be the finish unless we act. I've tried single-handed and only just escaped with my life. Now I'm asking for all the support I can get. Mr. Denby gave his support freely, so surely you can do the same?"

"Of myself I cannot, but I can put the matter before my colleagues . . ." The deputy shrugged. "Frankly, Mr. Meadows, I cannot see what all the fuss is about. I can understand your wishing to prevent a stolen formula achieving success, but I do *not* understand why space travel will cause such chaos."

Dick glanced at his fellow scientists. "These gentlemen have checked my figures," he said, "and they agree that my theory is probably right. Correct, gentlemen?"

The scientists nodded.

"*Probably* right?" the deputy repeated. "Are you not *sure*?"

"An untried theory is never sure," Dick explained. "Paper plans are very often different in practice, but by all the laws of celestial mechanics it seems certain that . . ."

"Really, Mr. Meadows, you are wasting time," the deputy interrupted impatiently. "I am prepared to listen to anything supported by incontestible evidence, but when you are not *sure*—— No, I cannot spare any longer."

"Where can I get hold of the Prime Minister himself?" Dick demanded. "I have just *got* to!"

"I am not at liberty to tell you. Now, gentlemen, if you please . . ."

There was nothing else for it. Dick tightened his lips then with a sigh he zipped his brief case shut and led the way out of the office. In the wide corridor outside he looked at his fellow scientists.

"There it is, fellows," he said hopelessly. "You know and I know what we're fighting, but can we make a dimwit like that believe it? Not on your life!"

"We'll do what we can to get in touch with the P.M. himself," one of them said.

"There is the chance it may be a theory which is correct on paper but governed by unpredictable factors in actuality," another commented. "We shall have to pin our hopes to that if all attempts to get help fail. Of we might contact other countries—America for instance—and put it before them. They might get things moving."

Dick did not answer. The fact that even the scientists were half hearted about the theory was the final blow as far as he was concerned. He shook hands with them listlessly and then stood thinking. Finally he shrugged to himself and left the building. He spent an hour seated on the Embankment, regardless of the cold wind, thinking the problem out—then as it came near to lunch-time he retired to the restaurant where he had promised to meet Madge and relate progress—if any.

Her expression was grim when, over the meal, he had finished outlining the situation.

"Then what happens now?" she asked at last.

"Nothing. I've done all I can. If those in authority won't learn by being warned maybe they will from experience. One thing I am sure of. Nothing will stop Vince Clegg and Gunther from building a second projectile, and I don't intend to take the risk of trying to stop them: they're too wary. So we will take our own precautions. You, your father, and your mother—and I will all go underground. That will be the only safe spot. I must see if I can talk your dad into it."

"Some task," Madge commented wryly. "He's still smarting at the losses he's taken on his non-existent Space Corporation."

"This is his life, and yours and your mother's with which

he is trifling," Dick pointed out. "If he *won't* listen, well he can't say he wasn't warned."

"Because you expect the atmosphere to burn up? Can't you make it more clear than that?"

"I could, but you wouldn't understand since you're not a scientist . . . Will your dad be at home this evening?"

"As usual, yes."

"Right. I'll do what I can with him."

And at eight-thirty that evening, after dinner — to which Madge had invited him — Dick went into action. The tycoon was enjoying his cigar in the library and in the mood to listen, for a change. Or else it was because he felt he must with Madge's keen eyes fixed upon him.

"Since I don't suppose that that nitwit of a deputy P.M. will ever try and contact his superior, the only thing for us to do is look out for ourselves," Dick concluded. "For a comparatively small sum you can build a good sized shelter under this very house—about a quarter of a mile down. And into it we can duck at the first sign of trouble."

"Mmmm—so *that's* it this time?" Morgan T. raised his eyebrows. "Dammit, boy, what will you expect me to do next? First I lose part of my fortune on a crackpot Space Corporation idea—and I would have lost *all* of it but for smart financial wangling—and now you want us to go below like a lot of blasted rabbits and wait for something to happen! No! That's final!"

"It will only be final, dad, if you *don't* go below," Madge pointed out. "Dick knows what he is talking about, as he always does."

"Naturally you will support him, but I've had about enough. You don't even say what you think *will* happen. Atmosphere will catch fire, eh? Why? How?"

"Because of the passage of a hot body through the gaseous envelope encircling our planet. It's too long an explanation to give in detail. All I'm asking is that you protect yourself, your wife, Madge, and—if I may join in—me. It wouldn't cost more than three or four thousand to build a suitable shelter, and I'm quite sure you wouldn't miss that."

Morgan T. raised his brows again, then relapsed into thought.

"Suppose," he said presently, "this shelter were built. How would we get warning when to use it? Surely if the atmosphere caught fire everything would vanish in a sheet of flame?"

"It would take a period of time, but only very brief," Dick replied. "Our best course would be to remain in this very house, ready for instant departure below."

"Good heavens! Do you suggest that I, with dozens of interests, should mope around here waiting for something which might never happen? The thing's utterly ridiculous!"

"Very well, sir. Will you permit *me* to have a shelter built in order that your wife, Madge, and myself can be protected?"

"On my money?"

"Certainly," Dick assented calmly. "You owe it to your wife and daughter to protect them even if you yourself are not interested in preserving your own life."

Morgan T. was silent, scowling at the end of his cigar as it lay between his fingers.

"I am not embarking on some tomfool scheme, sir," Dick added quietly. "I tell you most solemnly that there is real danger, and since I cannot get those in authority to listen I am taking the only alternative, protecting myself and those nearest to me."

"Oh, very well," the tycoon growled at last. "If the idea is wrong I suppose the place can be converted into a store-room or something."

"Or a laboratory for Dick when we're married," Madge suggested.

"Though I hope we shall get married I have grave doubts if a laboratory will be any use," Dick muttered. "You still do not realise that we are on the brink of a volcano, and it will erupt with inconceivable violence when the next space machine is fired off from Europe."

"I'd make somebody listen if I had any influence over politicians," Morgan T. commented. "Unfortunately I haven't . . . Very well, boy, get on with this shelter idea

and send the bills to me. And don't make them too steep!"

"No steeper than I can help, sir, but berrylum steel, asbestos, and sponge rubber will all be needed to take the strain. They all amount to a fair sum. However, with that much settled I may as well spend the rest of this evening drafting out the design. You might like to help, Madge?"

"Nothing would suit me better. And whilst we're on with this job you might as well abandon your hotel and live here."

"My idea exactly," Dick smiled. "I also think that we might as well get married. There's just a chance that after the Disaster has passed we shan't even be able to *find* a clergyman, let alone one who can marry us."

"You certainly take your theory seriously, don't you?" Madge asked sombrely.

"I have to, dearest."

"Then whilst we have the chance it must be the biggest wedding ever, and——"

"No." Dick shook his head. "Much as I'd like to agree, for your sake, there just isn't the time. Every minute that passes the European scientists are at work, and so must we be. . . . Now, let's get on with the drawings."

Dick opened the door and followed Madge out of the library. For the rest of the evening they were busy in the lounge, working out the shelter details and arranging how it could be entered at a moment's notice from the residence. It was two in the morning before they had finished. The following day they went into the city for a double purpose—one to get married by special licence and the other to contact the necessary contractors who would build the shelter. There was no time for a honeymoon, no time for anything but to supervise the shelter upon which Dick exclusively concentrated his attention.

"If we survive," he kept on saying, with complete seriousness, "we'll take a honeymoon then . . ." and back he would go to the task of directing the contracting engineers burrowing down beneath the residence.

Every day which passed Dick expected to hear of something disastrous happening—but nothing did, and certainly

there were no hints leaking into the press of anything unusual occurring in Europe. Not that he expected this latter since Gunther and his fellow scientists would undoubtedly take care to keep everything quiet.

Which was exactly what they were doing. Beaten in their second attempt to launch a projectile into the void, and minus the projectile itself as well, they were working at a feverish pace to get a new one made, the same engineers who had made the first one doing the job. Gunther, disregarding all the theories of Dick Meadows—which he regarded as mere evasion tactics—was fully convinced that England might yet beat him and rob him of the opportunity of being the first scientist to launch a projectile successfully into the void. That it might mean inquiry as to where he had learned the secret did not bother him: he would switch all the blame to Vince Clegg, or else hide behind a screen of legal technicalities.

A month passed and in that time plenty had happened on both sides of the Channel. In Gunther's case the new projectile was complete. The parts had been delivered, assembled, and put in position in the cradle close by the underground laboratory. And under the residence of Morgan T. Pearson, a quarter of a mile below the surface, was a perfect shelter of beryllium steel, asbestos, and sponge rubber, designed to take almost any kind of shock. Within it were all the necessary amenities, including food for a year and clothing. It was the very elaboration of the preparations which disturbed Morgan T. He felt more and more inclined to believe that Dick had been telling the truth—that there really *was* danger, so he began to make plans of his own which allowed him to withdraw from his business activities for awhile and control everything over the phone from his home. In spite of his earlier remarks he did not intend to be missing if necessity demanded a sudden bolt into the funk-hole.

It was about this time that there came a sudden surprise. No less a personage than the Prime Minister himself arrived at the Pearson residence one evening, accompanied

by two advisers. Before long Dick found himself cloistered with them in the library.

"I received word from my deputy, Mr. Meadows, that you fear a world-wide cataclysm if a space machine is fired," the P.M. said, coming straight to the point. "Though the details given me were rather vague I could gather your urgency, knowing you as I do. I returned immediately from abroad and summoned various scientific experts who, it seems, have worked on your theory and found it correct."

"I believe it to be so, sir," Dick admitted; then he smiled rather incredulously. "To be frank, sir, I never thought your deputy would trouble any further. He was—er—brusque to say the least."

"I know; a failing of his." The P.M. was tight-lipped and serious for a moment. "Happily, Mr. Meadows, I am a scientific man myself—enough, anyway, to grasp fundamental principles. And I also know your genius in that direction. I understand you suggested the rather impossible plan of bombing out the European factors concerned in making a machine from your stolen plans?"

"It seemed to me the only way, sir, using a new compass detector to find out where the space projectile is. The detector operates by being magnetised wherever the secret element in my fuel is present."

"Quite so, but such a method is right out of court. You attempted it individually, and failed, I understand. There is no reason to assume that a whole fleet of bombers would fare any better. Were the decision entirely my own I would do as you ask, because I believe you know what you are talking about—but I don't think the Cabinet or the Minister of Aircraft would see eye to eye with me. So, rule that out. Instead, we must take precautions in case anything *does* happen. What do you suggest?"

"Quarter-mile deep shelters, lined with beryllium steel, asbestos, and sponge rubber. There is one under this house at the moment. But it has been left very late in the day. Too late, perhaps. I cannot see Europe delaying much longer in another space attempt."

"I see. There is one thing, Mr. Meadows. So far I gather you haven't explained what you really expect *will* happen. You have referred somewhat vaguely to the atmosphere catching fire. Before I put before Parliament a scheme for protection I want to be sure of my ground. Even then it will be difficult enough to carry the day. Our loophole will be to explain away the shelters as protection against an alien power. The average public will never understand the *real* issues. These two gentlemen here are experts in science, as you probably know."

Dick glanced towards them and smiled. "Yes, sir, I know. These gentlemen were amongst those who checked on my theory."

"And they have given me a long-winded explanation which I cannot follow," the P.M. sighed. "I am hoping you will be able to make it clearer."

"Very well—if it will help in protecting humanity. But I would like Mr. Pearson and my wife to hear it, too, if you have no objections? They are as puzzled as anybody else and I've refrained from explaining in case they would not understand."

"By all means, by all means," the P.M. agreed.

Dick pressed the bell-push and summoned Andrew. Before long the tycoon, Madge, and Mrs. Pearson had come into the library, gravely acknowledging the P.M.'s greeting.

"Since things have reached their present stage," Dick said, when the preliminaries were over, "I may as well explain also what my fuel formula is. You will see from my theory that it must never be used, so there is no harm now in telling you that the missing factor is inaxium, an atomic by-product of uranium."

"Ah!" Morgan T. said, in profound satisfaction. "At last we have it! In what proportions, boy?"

"The proportions don't signify because it will never be used . . . Now to my theory, which began on the night when I saw a shooting star, though I don't claim the credit for being the first man to work the theory out: the credit belongs to Dr. Whipple of Harvard Observatory . . ."

Dick settled in his chair and went on talking pensively.

"One hundred and twenty miles up is the Appleton Layer, electrical in character. Sir Edward Appleton himself, discoverer of the Layer, revealed that Earth—and probably other planets which have an atmosphere—is surrounded by electrical shells several layers deep, better known as ionospheres, very much in the same way as an atom is surrounded by shells of electrical fortifications . . . Now, the Appleton Layer has a temperature above a thousand Fahrenheit degrees, which really means that Earth is surrounded by a wall of invisible fire.

"Now the upper part of Earth's atmosphere, where lies the Appleton Layer, is composed entirely of nitrogen. It is an umbrella for us, in fact, because it absorbs radiation from the sun, deadly ultra-violet and X-rays in particular, which would of course burn all plant and animal life to cinders if it got down to the surface. The gas is supercharged with energy, its molecules dissociated. The component atoms, filled to bursting point with energy, shoot in every direction at high velocity. The unstable atoms then absorb more intense radiation of higher energy and the atom itself is disintegrated into its component electron and proton, thus creating the electrically charged Appleton Layer. Clear, so far?"

The scientists and the P.M. nodded, but Morgan T., his wife, and Madge were looking vague.

"I warned you it would be highly technical," Dick smiled. "That is why I didn't embark on it sooner. Anyway, to continue: Every atom is in the same condition, so no atom is able to pass its energy to any other atom. And as there is nothing on which to condense the atoms fly around at tremendous velocities. Their energy is equal to that of matter at a temperature of two thousand degrees. Fire which cannot flame because there is nothing around to consume.

"Now, into this ocean of invisible fire there comes a chunk of iron falling to Earth. It hits the Appleton Layer, becomes white hot, and is called a 'shooting star'. The disintegrated atoms now have something solid to which they

can transfer their energy—the chunk of iron—and this can burn.”

“But there is no comparison between a shooting star and a space machine,” Morgan T. protested.

“Let me explain, sir,” Dick insisted. “Any spaceship is a shooting star in reverse, and to reach the void it *must* go through the Appleton Layer. Picture what will happen when the machine reaches the Layer. On every square inch of that space machine untold quintillions of disintegrated atoms will condense *and* deliver their heat, causing the spaceship to become incandescent. It would burn like a candle in a furnace! That is why I believe space travel can never be accomplished.

“I come now to the horrible fact,” Dick went on, his face grim. “The threat we face from Europe. The spaceship they are going to use is powered by atomic force, of course, using a by-product of uranium—inaxium—for part of the fuel. Now, with the melting of the space machine the inaxium and other atomic products will also explode with shattering violence, chiefly because of the cosmic rays—so plentiful high above the Earth—which release atomic power indiscriminately. I repeat, then, a huge explosion would take place. The Appleton Layer would be set swinging up and down and would rush into the vacuum created below in the heavier air by the explosion. The hot invisible gases would sweep down and make contact with the Earth’s surface. Every area they touched would become incandescent. The total amount of energy stored in the dissociated atoms of the Appleton Layer is greater than the amount of energy in two thousand bombs of the Hiroshima type, with ten thousandfold greater reserves lying beyond it.”

There was a grim, tense silence in the library and the men looked at one another uncomfortably.

“If, through the explosion of a spaceship, the Appleton Layer should make contact with the Earth’s surface,” Dick continued deliberately, “the break-through would perpetuate itself like an electrical short-circuit and the entire energy content would descend on our heads in a flaming avalanche! Multiply the terror of Hiroshima by two million times and you have a vague idea of what could happen . . .”

"Now I understand," Morgan T. muttered. "You have kept this to yourself too long, boy. Good God, every possible means must be used to stop these crackpot scientists in Europe setting off their projectile!"

"Or, alternatively, we must seek protection," the P.M. said grimly.

But they were talking to no avail. At that moment Herr Gunther was pacing slowly up and down his underground laboratory and pondering to himself. Around him, waiting, were his strong-arm men and Vince Clegg.

Finally the Prussian turned. "It occurs to me, Herr Clegg," he said, "that there are certain interesting facts about space travel which no instruments can ever tell us—at least, not at this stage. The reaction on the human frame, for instance, the effect on the eyes and ears. I think we should abandon the idea of radio control and send a genuine pilot."

"You mean," Clegg said uneasily, "that you think I should pilot the projectile?"

Gunther's sensual lips were smiling. "Why not, my friend? Think of the honour!"

"You're trying to get rid of me," Clegg shouted. "That's the real objective!"

"Quite correct," Gunther agreed, shrugging. "You see, Herr Clegg, you are no longer of use to me because you are wanted in England by the authorities—and since you can no longer operate there your value has depreciated to zero."

"Why, you scheming, low down——"

Clegg could not get any further. At a signal from Gunther he was tightly seized and held.

"Put him in the projectile," he ordered. "Close the air-lock door on him."

Clegg shouted and swore, but it availed him nothing. He was given no chance to break away and finished up in the projectile's control room, its door slamming upon him. He scrambled up in the light of the single roof bulb and looked at the switchboard, trying to decide if he could do anything to wreck it, but not having the knowledge of Dick Meadows he hesitated—and that proved his undoing.

Gunther wasted no time. Even as Clegg was trying to think of something he heard the dull click which signified the movement of the power-plant switch. The next moment the motor began to hum steadily and simultaneously the rocket projectile started to rise. Clegg gasped as he was flung to the floor and flattened on his back.

There was not a thing he could do. Gunther did not spare his victim one iota and the speed upwards was infinitely faster than that which Dick Meadows had permitted. Clegg gulped and choked and sweated, bulging eyes fixed on the observation window above the control board. Through it he saw the last haze of upper cloud vanish to be replaced by misty canyons of stars. They grew brighter as the atmosphere thinned. The velocimeter advanced with tremendous speed: the altitude climbed up to 100 miles. Clegg still could not move, so stupendous was the inertia.

100—110—120—125 . . . Clegg blinked suddenly as a blinding light suddenly burst in front of the window. Around him things began to grow dark yet the glare increased and became whiter and bluer without. He only realised in a second or two that his sight had been practically destroyed by the initial outburst, making him unable to see normally lit surroundings. What seemed to be a glow outside was actually an unholy glare approximating that of the solar photosphere.

Even this dimmed before Clegg's vision and at last everything was black. Heat was raging around him as he groped in the darkness and screamed uselessly for assistance. Heat which bit into his flesh and made the plates burning hot below him. Heat—hotter and hotter—until he was sucking fire into tortured lungs and everything was whirling in the appalling dark.

But what he took to be darkness, as the space machine began to liquefy in the Appleton Layer from the energy of the bursting atoms around it, was actually the most brilliant light ever seen by man. In every part of the world where the night was reigning the glare was seen—an unbelievably brilliant circle of fire far away in the heavens. It paled the light of the rising full moon, it outshone the stars, and it blazed with a steady intensity which made the eyes tingle.

Men and women found, when at last they looked about them again, that everything was shadowy and masked with pools of dark. There were emanations from that atomic onslaught high in the sky which were fatal to the human sight.

Panic started, and grew faster than the devouring flame in the heavens. Night had become day—and Dick Meadows, Madge, her father and mother, the Prime Minister, and the two experts all became aware of it as an increasing glow crept upon the great windows of the library and illuminated the curtains from the outside.

"What is it?" Madge asked at last, in surprise.

"It's it!" Dick whispered, jerking his face way and blinking at the startled assembly. "Atom fire. They must have sent up that spaceship from Europe—— Quick—down below!"

"But haven't I time to——?" the Prime Minister started to say, but Dick cut him short.

"You've no time for *anything*, sir, if you wish to preserve your life. In a matter of minutes that electrical discharge will flash to the ground, then real hell will break loose. There isn't time to warn anybody—not even to warn them that to look into that light is to ask for blindness. Come—all of you! Hurry! Madge, go ahead of us and get the house staff. They must come too, of course."

She nodded and went quickly from the library with the others following with nervous speed behind her. The staff was assembled in a matter of moments with the grave-faced and still unshaken Andrew controlling them.

"A word of warning," Dick said, when they were all assembled in the hall. "To reach the shelter we must go outside for a moment. Whatever happens, do *not* look up. Even as it is we may find ourselves somewhat burned from radiation, but from that we can easily recover. The shelter is fully equipped with medical kit. Now, if you are ready——"

He opened the front door and the brilliance of the light outside was like that of a summer day, except that it had an unnatural blue-whiteness about it. A wind had risen too,

now, and was sweeping loose gravel stones high into the air. From far away there seemed to be a roaring, growing ever nearer and deeper.

"Quickly!" was all Dick said, and he moved swiftly outside, holding onto Madge's arm.

It was an irresistible temptation to look above and see what was happening, but the party overcame it. Instead they looked at their shadows clear cut on the ashy-white ground and heaved sighs of thankfulness as they entered the constantly open door of the shelter. Dick closed the door quickly and locked it, then pressed the switch which set the floor of the narrow, square space dropping swiftly down the quarter-mile shaft.

Once the descent was complete Dick pressed another button and a steel lined door opened onto the underground shelter, self-generated lights also springing up at the same moment. The steel-lined door moved back over the lift shaft, completely sealing off the upper world.

Morgan T. poured drinks and for a moment social distinctions were utterly levelled. Down here in the shelter were ten people, from the Prime Minister to the parlourmaid, and all of them equally frightened because they did not fully understand what was going to happen.

Outside, there was nothing but chaos. When the fire-layer from the Appleton region contacted the Earth the powder keg went up with a vengeance! Devouring flame seared across landscape and seascape alike, incinerating everything in its path, destroying scurrying, panic-stricken humans like ants before a bush-fire. Some bolted into the underground railway stations and for a time survived. Others dived into rivers but were blasted just the same. Some crawled into sewers, and the wisest—if they happened to be near to them—went into the depths of the coal mines or natural caves.

But even then the fire grew in intensity, melting man's precious cities and presently even the rocks and soil for a depth of twelve feet all over the surface of the Earth. The oceans boiled with terrific force and hurled forth tidal waves

on crumbling landscape. Steam rose in impenetrable fog and blotted out the livid heavens.

Then came the winds, hurricanes of nearly 300 miles an hour, whipping the reeling, exhausted planet from end to end. With them came pitiless deluges of boiling water which rolled down mountain sides and formed vast inland lakes of suffocating steam. Creation indeed was repeating itself. The melting of the polar ice-caps also created more trouble, adding nearly fifty feet to the level of the world's fuming oceans.

In three days nothing was left of Man's achievements. And for all that was visible nothing remained of Man himself, either. But this was only the surface appearance. Man is the toughest of all animals to completely eliminate, and he still lived and palpitated with terror below the chaos, separated from it by a thin screen of rocks which had so far not been melted.

At the end of a month, with no more earth-swayings to proclaim that all was far from well above, Dick began to wonder about venturing to the surface for a glimpse. He, and those with him, were in good health since the shelter was perfectly ventilated and supplied with air and food, but the confinement was crushing to the nerves and the uncertainty was hell. It would be better to know the truth.

"Why just you, Mr. Meadows?" the P.M. asked quietly. "I think *all* of us should go above. If there is instant death when we put our heads outside—if we can!—then let us share it. I am sure none of us wishes to prolong a life down here, shut up in a tomb forever more."

"Perhaps things may not be quite so bad as I have painted them," Dick commented. "Let's go above and see."

He pressed the button and the steel slide moved away from the lift, but when the party stood inside it it failed to rise as Dick pressed the second button.

"Might have known it," he said. "The top of the shaft has probably been smashed in and buried the pulley, the works, and all the lot. Only thing we can do is climb up. This is a job for the men only. You, Richard"—he glanced at the Pearson chauffeur-handyman, a fellow of vigorous

twenty-five—"and me. You more elderly gentlemen had better stay and keep the ladies company. A torch," he requested, "and an automatic drill. And you folk had better get out of this lift," he added. "Considerable rock falls are possible."

There was movement as the lift was vacated. After a while Richard returned with the torches and two drills. He secured them about his shoulders with cord and together they stood in the lift and flashed the torch beams up into the dark.

They made the necessary arrangements for climbing as freely as possible, then Dick commenced the ascent, his hands slipping a little on the oil-filmed strands of the cable. He kept at the task steadily, glad of some action after four weeks of stifling immobility and fear of instant death. Behind him the powerful chauffeur rose steadily, his legs scissored round the wire.

At intervals they locked a leg and an arm round the cable and rested for a while, studying the dim glowing spot of the lift trapdoor far below—then up they went again, until at last, when it seemed their muscles would drag them no further, the waving torch beams reflected back from the underside of wet rock.

"We're there," Dick said. "And plenty of ledges around us to swing onto as well."

With his torch beam he indicated them. Since they had not been there before he could only assume the surface had crumbled inwards considerably and narrowed the shaft's diameter. One thing was certain: the lift would never be able to rise again. The only escape would be by dragging each member of the party up one by one.

Without much difficulty Dick swung himself to the nearest ledge and released his hold of the cable. He landed heavily and to his relief the ledge held firm. In another moment the chauffeur had dropped beside him. Together they flashed the beams on the barrier of rock around and above them.

"No means of knowing what condition the surface is in," Dick said finally. "We may be only a few feet from it, or

—if rock is piled thick—we may be several miles. We'd better drill and see how far it gets us." Then, as he took the drill from his shoulder he added rather dryly, "Best of luck, Richard, just in case we bore our way into poison gas."

This did not happen, however, and the drills went on boring steadily, cutting immense pieces out of the rock which Dick rolled into the shaft and allowed to drop. It was half an hour later when Dick's drill suddenly buried itself to the limit as it encountered no resistance. Instantly he cut off the motor and Richard did likewise. They looked at one another tensely in the torchlight.

"Seems like I've plunged through into nothing," Dick muttered. "Maybe the exterior. Now for it . . ."

Very gently he pulled the drill needle back and there appeared a white, round hole through which a warm draught of air was blowing. Dick swallowed hard. No poison. Just air, apparently as it had always been. He felt he wanted to whoop with sudden joy but controlled himself. Moving to the hole he put his eye to it and peered outside. All he could see was a grey sky, thick with lowering wind-driven clouds.

The chauffeur looked also, then shrugged.

"Looks like an ordinary wet day," he said. "And it is raining. I felt water splash on my eye as I was looking."

"Let's get through," Dick decided, and turned his drill to action again.

To bore a hole large enough to scramble through was not difficult, then Dick went first and stood up, speechless in amazement at the view around him. Richard came up beside him and said nothing, his eyes completely blank. They both felt like foreigners suddenly set down on another world.

Formerly there had been the house, the grounds, countryside, and the murky backdrop of London. Now there was only rocky landscape as far as the eye could see—to either side and behind, whilst to the immediate front there was a tumbling grey ocean dashing noisily against the rocks. The spot was as remote and lonely as one of the former Shetland

Isles. The wind was strong and the air thin. It was an effort to breathe properly.

"Just as I thought it would be," Dick muttered at last. "A barren, entirely repatterned world . . ."

* * *

It was two hours later before those below were brought to the surface, using the lift's cable for the necessary "haulage". At length everybody was outside, clad against the biting thinness of the wind, each provided with food and water enough for three days.

Dick took Madge's arm and began walking forward. In a tight little party the ten moved slowly over the crumbled rockery of the landscape, each one remarking to him or herself how utterly altered everything was. The memory of the great residence with its sweeping grounds and the countryside beyond had utterly been swept out of existence. There was a sterile, Martian quality about everything, except that there were no deserts—at least, not here.

It was late afternoon when Dick Meadows' party came to a high ridge in the plateau they were traversing. They stopped and glanced at each other in sudden eagerness. Beyond the other side of the ridge was a valley, and in it perhaps a score of raggedly dressed men and women moving slowly towards the north.

"Ahoy there!" Dick yelled, waving his arms. "Wait for us!"

The party obeyed, waving back. At least some of them did. Others just stood dumbly like horses told to stop. In a matter of minutes Dick and Madge and the chauffeur had caught up with them, the less agile ones following in the rear.

"Thank heaven!" Dick exclaimed, shaking hands with

the grim-faced man who was leading the party. "This at least shows us that we are not the only people alive."

"I'm wondering if being alive is such a blessing," the man answered. "I've got eighteen men and women here, some of them nearly dead from exposure to this ghastly wind. Two of the men and three of the women are totally blind through looking at the sky when that horror fell upon us. What kind of a damned picnic is it to guide hapless ones like this?"

"Take it easy," Dick murmured. "We'll help you. You've got reaction nerves like the rest of us. Where are you making for?"

"Anywhere where there is shelter."

"Which you might never find," Morgan T. said, coming up. "Look here, boy, this is ridiculous! We've satisfied ourselves that we are not the only folk left alive—but what does it get us to keep on tramping until, maybe, we die of exhaustion? I'm all for returning to our underground shelter—taking these poor folks with us—and making proper plans. We know now we are not alone, so let's form some *plan*. As an organising man, that seems the only logical idea to me."

Dick hesitated. Then Madge gripped his arm.

"It's the only course, Dick. That can be 'home' for a long time to come until we decide what to do. We have tools down there, too, and practically every conceivable necessity left from the world that was."

"Right," Dick assented finally. "Let's get back. You can give a hand with these blind folk, Madge."

So the return up the shelving side of the valley began. Morgan T., guiding a blind woman with one hand, turned to the man who had been leading the party.

"I'm Morgan T. Pearson," he said.

"I know. I recognise you. How about your millions, Mr. Pearson?"

"As useless as the stones we're treading. If it were not for the fact that such horror has blasted nearly everybody off the planet I'd be mighty glad of what's happened. I never felt in better health in my life. Exercise, no respon-

sibility, the future full of hard work and building: that's what I thrive on. Dammit, I feel twenty-five again."

Dick glanced back over his shoulder as he caught the former tycoon's words. He gave Madge a look.

"Are his daughter's reactions similar?" he asked dryly.

"Not quite, Dick. You and I are still young and we hadn't amounted to much—at least *I* hadn't. You had made a name as a scientist, but not a name great enough to make you heard when you raised your voice in warning. I'm not sure if I don't prefer it this way because we have to start at the very commencement. Maybe the Devouring Fire did good. It cleansed everything when it was getting to a pretty desperate pitch. We were in the midst of economic difficulties and international tension and nobody seemed to know how to put one foot before the other. But now every one of us knows—wherever there may be survivors—just what the future holds. Building! Building! And nothing else but that."

Dick was silent. He knew how right she was, and he also knew just how fierce the new struggle was going to be. In all parts of the world there would be little knots of people slowly drifting together and exchanging their ideas, but all these people would have one advantage over the cavemen from which they had sprung—the advantage of knowledge. They already knew how to construct radio, how to release the power of the atom, how to make a comfortable society out of a wilderness. In a generation, perhaps, the world would be pretty much the same as it had been before, except for its changed topography and thinned atmosphere.

But it might be a civilisation built on much better lines, modelled on the live-and-let-live principle. Man had paid dearly for his attempt to try and conquer the void. There was one thing he still had to learn—to conquer himself, and make of the planet on which he lived a paradise fit for the as yet unborn to populate.

"Yes," Dick muttered, as these thoughts went through his mind, "we are prisoners of this planet, but for that very reason we need never fear outside attack. None will ever come, because they cannot. If we once master our

world and our peoples re-pattern their policies, there is no reason why we cannot have peace everlasting."

Madge smiled and gripped his arm again. It was sufficient assurance to him that she would stand beside him to the end. He walked on into the thin wind with the consciousness of vast things to be accomplished.

THE END

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